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ILY DIGEST

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Views and opinions

U.S. Department of Agriculture

Section 1

February 4, 1942

Digest Readers Please Note!

As stated above, the Daily Digest is an employee publication. That is, its preparation is authorized only for Department employees -- either full or part time employees. For this reason, the Digest cannot be mailed to those who are not Department of Agriculture employees.

However, copies are sent to the libraries of all agricultural colleges, and to Extension workers suggested by the Washington office. These are Extension directors and editors, and state leaders of county agent, home demonstration and 4-H club work. The Office of Information regrets it cannot send the Digest to the many outside the Department who daily ask for it.

Also, it would be appreciated if those who do receive the Digest circulate it as much as possible among other employees who wish to see it. Most field offices get only one copy (to be circulated). The same practice in Washington offices, wherever possible, would help the paper shortage and also help the Digest stay within its alloted funds.

USDA Employees Harold D. Smith, budget director announced (Feb. 3) Moved to Field the USDA has been directed to remove from Washington, at the earliest practicable date, 3,850 employees -thus to release about 485,000 square feet of space. In the order are virtually all employees of the FCA, 700 of the 1,810 Washington employees of the AAA, virtually all employees of the REA, 633 of the 1,033 employees of the FSA, and 220 of the employees of the Office of the Solicitor who perform legal services for these agencies. The FCA goes to Kansas City, Mo., the FSA to Cincinnati, and the RRA to St. Louis. The majority of AAA employees will be transferred to existing field headquarters. Both the RIA and the FCA will maintain a small staff in Washington to work with other agencies of the Government.

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New Dinitro Sprays Tested at Geneva Geneva (N.Y.) Experiment Station: Recently introduced dinitro insecticides for dormant treatments against bud moth, aphids, and other insect pests of apples have been carefully investigated by station entomologists.

So enthusiastic have apple growers become over dinitro insecticides that station specialists have given recommendations after only limited testing of the materials. One of the chief factors affecting results is weather. A mixture which may be safe for apple buds in a normal season may injure trees that suffered from drought the preceding year.

The standard mixtures for bud moth, rosy aphid, San Jose scale, and European red mite contain 3 gallons of lubricating oil and 12 ounces of dinitro-o-cresol, commonly called "cresol," in 100 gallons of water and are applied before the buds break. Under certain conditions, however, this mixture may injure the lateral buds.

In view of increased food production this coming season and need for economy in insecticides, station specialists urge fruit growers to obtain the latest information regarding spray mixtures and spraying operations.

Prevention of Gassing of Chicks

Enough carbon monoxide may accumulate in a poorly ventilated brooder house, heated by a wood, coal, or oil burning stove, to kill every baby chick or turkey poult in a short time. USDA studies indicate that many

thousands of chicks are killed by monoxide poisoning every brooding season, though the deaths are sometimes attributed to other causes. Carbon mono-xide chick losses are often highest on cold, stormy nights, when windows and ventilating vents are closed to protect chicks from cold. If the poultryman suspects carbon monoxide poison, he should remove the birds to fresh air immediately.

Best insurance against carbon monoxide is good no-draft ventilation through the brooder house, and a brooder stove that burns fuel efficiently. Although electric chick brooders do not generate carbon nonoxide, they may gas the chicks in another way and cause serious losses. Tests by the USDA and University of Nebraska show that carbon dioxide (gas exhaled by breathing chicks, man, and animals) may concentrate under chick-brooding hovers more than 3 feet wide to a point where it is harmful to chicks, unless some type of forced ventilation is provided.

Warm Water Means More Eggs, Meat, and Milk

Rural Electrification News, December: A plentiful supply of warm water during the cold months will increase dairy cow production by 10 percent or more.... According to latest information and based on present

high price levels, warmed water increases the value of each poultry layer's productivity by about 15 cents to 30 cents a year, \$40 more with 200 hens A simple, electric stock tank water heater can be constructed for about \$15, will keep water at 40 degrees, and will operate, in a cold climate, on one-fourth kw.-hr. per animal per day.

Tobacco Industry Committee Chicago report to N. Y. Herald Tribune, January 18: The National Association of Tobacco Distributors has announced formation of a permanent war-service committee to cooperate with the Government in adapting resources

of the industry to war needs. It also adopted a program pledging efficient and economical distribution of tobacco products to armed forces and civilians for duration of the war.

Britain Calls Cotton Essential War Industry

Canadian Textile Journal, January 16: The cotton textile industry in Great Britain has been officially recognized as an essential war industry. A vast increase in production now is imperative, partly owing

to Russia's demands and partly due to the fact that the war has spread to

tropical countries where cotton uniforms are necessary.

The so-called "essential works orders" has been applied to the veaving section of the Lancashire industry whose employees now receive the guaranteed minimum wage, whether the mill is operating full time or part time. Such workers can no longer be drafted for other war work or for the righting forces unless dispensible to the industry.

New Method Shortens Cheese Making C. C. Flora, Virginia Polytechnic Institute, in National Butter and Cheese Journal, January, describes a new method for making cheese. By this method, he says, "all steps in processing the milk are shortened.

The average time taken for the milk to coagulate is little if any longer than half the time usually required. The curd is cut as soon as it is firm enough; this is left to the judgment of the cheesemaker. Everything we have heard from the consumer has been favorable. We have been selling the retailer at a premium over the market price for cheese. Cheese and more cheese is one of the badly needed food items. Our way of making cheese, cutting the time in half, and of curing cheese, also cutting the time in half or less, may be of interest to cheesemakers.

Kansas Reducing Bindweed Pest Implement & Tractor, January 17: A few years ago one of the greatest hazards to Kansas agriculture was the bindweed, also known as wild morning glory or

creeping jenny. Today as a result of four years of effort the pest is well on its way toward eradication. The eradication was first set in motion by a 1937 nomious weed law, aimed principally at bindweed but applicable to other destructive weeds.

Since the start of the campaign bindweed has been entirely eradicated on 4,532 farms. In addition, all bindweed acreage is under treatment on 10,410 farms, but the eradication is not yet complete. On 10,149 farms owners are cooperating by eradic ting a part of their acreage but as yet do not have all the bindweed under treatment.

Army Develops
"Defense Ham"
Boneless Beef

World-Wide-AP report in Christian Science Monitor, January 20: The Corps Subsistence Research Laboratory of the Army Quartermaster Depot, in Chicago, has developed "defense hams." The Army found commercial hams were not

With the cooperation of meat packers, the laboratory developed hams which are smoked longer, have more salt and are "harsher," with more moisture removed. The defense ham will keep from six months to a year with refrigeration; without refrigeration, it will keep a month. Experiments also have been made with beef. The Army has the bone and much of the fat taken from its beef before purchase. Only the edible meat is left, made into small cuts, which are individually wrapped, packed in fiberboard boxes and shipped to Army units. This is known as "frozen boneless" boef.

ODT Head Says Trucks Will Keep Rolling

Washington Post, January 28: Joseph B. Eastman, director, Office of Defense Transportation, said at the meeting of the National Council of Private Motor Truck Owners. Ways can and will be found to keep this country!

millions of trucks rolling, despite rubber shortage and priorities restrictions. The transport picture today is far brighter than in the first World War, not only because of more types of carriers but also because organization was begun earlier and more efficiently. Already, progress in more effective utilization of carriers is being made on the West Coast, under John L. Rogers, head, ODT motor transport division.

Arthur C. Butler, manager, motor truck division, Automobile Manufacturers Association, recommended that private truck owners, such as dairies, retail stores, cleaners, and dyers, follow the example of the manufacturing industry in pooling equipment. Albert S. Goss, master, National Grange, said that for tire rationing purposes, farmers' cars should be classed as trucks rather than passenger vehicles, since they are used for hauling to a large extent.

Flowers Grown With X-Ray Treatment

New York Herald Tribune, January 27: David Burpee, Philadelphia, plant expert, yesterday showed his "X-ray twin" calendulas. The X-ray treatment, he said, produces more definite changes in the structure of plants than colchicine. Colchicine increases the chromesome content of a plant

and intensifies or distorts some traits of the flower, whereas the X-ray smashes the genes or breaks up the chromosomes in the seed so the next generation "goes crasy."

"The genes," he said, "are the units of hereditary material. They are placed in the chromosomes like beads on a string ... Bach gene is thought to be a large chemical molecule made up of various atoms of chemical elements. As such, if a gene loses an atom or a group of atoms, startling changes may take place in the form of the plant or flore. Roentgen rays are emitted as particles of energy from the X-ray tube. If we shoot a stream of X-rays at the seed ... and hit a gene, the effect may be good or bad on the next generation of flowers from that seed ... "

How Farmers Contribute to War Effort

San Antonio Express, January 16: Along with Food for Freedom, American farmers are being called upon to produce numerous strategic materials which in normal times would be imported. These are chemurgic crops.

from which vegetable oils, industrial alcohol, resins, waxes, gums, and fiber are derived. Tung oil and soybeans from China, cassava roots from Java, jute and hemp from the Philippines, aromatic oils and spices from the Netherlands East Indies, are among them. Already the foundation has been laid for growing some such crops, or substitutes, in continental United States. Four regional research laboratories (of the USDA) are contributing notably to the Nation's war effort. They are doing so simply by carrying out their original assignment, which was to seek new industrial uses for surplus crops. Some new laboratory products already are serving the war industries, and others will come.

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U.S. Department of Agriculture

February 5, 1942

As a preliminary step to conserve tin used in tin Conservation cans, the War Production Board has drastically cut the supplies of tin available in January and February for packaging baking powder, beer, biscuits, candy and confectionery, cereals and flour, chocolate and cocoa, coffee, dog food, petroleum products, spices and condiments, and tobacco. The quantity of tinplate and terneplate for these products for February was cut to 50 percent of February, 1940, and for the remainder of January to 12½ percent of the amount permitted for February.

Sugar

The sugar conservation order has been amended by

Conservation

the War Production Board to change the base period to

1941, instead of 1940. Under the amendment a wholesaler,

jobber or industrial user will be allocated a percentage of the amount of

sugar he used or resold during a corresponding period in 1941. For February,

such users may receive 80 percent of the amount used or sold in February,

1941.

Agricultural Defense Supplies Corporation will buy up 200,000,000 gards of osnaburg, (a stout, coarse cotton fabric) promptly. Reasons for the purchase are, (1) to give mills enough business so they can change over to osnaburg, (2) build a stockpile, (3) make fabrics available for food bags, sandbags, packaging, camouflage. The plan contemplates coordinating the osnaburg and burlap program so that enough of one or the other will be available for all essential needs. Under this arrangement the War Production Board, in collaboration with Defense Supplies Corporation, will move burlap into distribution for agricultural bags and osnaburg for sandbags and other uses, or reverse the order, or both fabrics can be used in the same channels, depending on which plan is the most desirable at the time and the goods that are the most available.

Weekly Weather Bulletin The week ending February 4 continued abnormally warm over all central and western portions of the country, and moderately cold in the East. This made the third consecutive week with unusually warm weather for the

season in North-Central and North-western States, with some localities having averages for the 3-week period of 20° or more above normal. However, from New York southward and southwestward to the lower Mississippi River the week was 1° to 6° colder than normal, the largest minus departures in the Florida Peninsula. Growth in the Southeast was definitely checked and there was some frost damage to tender vegetation. In the Southwest, particularly the southern Great Plains, soil preparation made good progress and winter truck crops are doing well, although rain is needed in central Texas. In the

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Southwest wheat fields are supplying considerable pasturage. Preparation for spring grain planting was fairly active, especially in the Southwest with some oats seeded during the week locally as far north as southern Kansas. The weather during January was decidedly abnormal in several respects. Instead of the usual alternating brief periods of relatively cold and warm weather, characteristic of the winter season, nearly the entire first half of the month was persistently cold and the last half abnormally warm. Much of the last 2 weeks of the period was spring-like over large areas of the country.

Latin American Engineers Study RDA Progrems

Rural Electrification News, December: That Latin American republics south could benefit materially from rural electrification programs is the conclusion of eight competent Latin-American engineers who are spending a

year as NEA engineer trainees. Participants in REA's "in-service" training program, the young men represent the republics of Argentina, Chile, Colombia, Guatemala, Honduras, Mexico, Peru, and Uruguay. Each trainee is a graduate of a reputable engineering school and has had considerable professional experience, most of them holding responsible engineering positions in their respective governments. The course is designed to give them a practical working knowledge of REA techniques in generation and distribution of electricity by rural electric distribution systems cooperatives.

"Prophet of the Prairies" Lewis Gannett, in N.Y. Herald Tribune, January 30, reviews the book, John S. Wright: Prophet of the Prairies (Prairie Farmer Publishing Company). The book was

written to celebrate the centennial of the Prairie Farmer, a farm paper that Wright founded and edited, but it becomes a lively picture of a stirring stage in the evolution of the United States. Wright helped change the face of the prairies.

Army Needs Special Canned Foods

Chicago report in Washington Star, January 30: Maj. Jesse H. White, Army Quartermaster Corps, at the convention of the National Canners Association, disclosed new developments by canners for the Army and listed things

the supply department is anxious to have. The developments include a sausage pattie fried before canning; corned pork and chopped ham; concentrated soup stock or gravy; Hungarian goulash; and combinations of beef and rice, cheese and bacon, and cheese and ham.

Important at present is development of a spread for bread for expeditionary forces, particularly in tropical countries. This product must withstand high temperatures and be packed in tin. A "mountain ration" also is needed for use in extreme cold, to be eaten without heating and prepared from products and in containers not affected by freezing. Suggestions also were asked for canned chicken and turkey with plenty of broth for hospital use and a method for canning eggs which will preserve texture, color, and nutritive value.

Record Scrap Collections During 1941 Washington Star, January 30: Edwin C. Barringer, secretary, Institute of Scrap Iron and Steel, Inc., gave scrap consumption figures for 1941. Scrap dealers last year supplied a record quantity of 25,000,000 gross

tons of scrap, as much as the combined purchased and home scrap used in the first World War. In 1941 -- 53,623,000 tons of home and purchased scrap were consumed, compared with 41,687,000 in 1940 and 32,434,000 in 1939.

Redstar, Late Strawberry

The Redstar strawberry, introduced last year by the USDA, produces large, highly flavored berries, its foliage is resistant to leaf spot and leaf scorch, and it is

later than any other standard variety. Planting in clay soils rather than sandy soils, on north slopes instead of south slopes, and mulching the plants well with straw will delay ripening. Ripening is also delayed about 1 day for each increase of 100 feet in elevation at which the strawberries are grown.

Okla. Egg Drying Industry Agricultural News Service, Oklahoma A & M College: R. B. Thompson, poultry specialist, says Oklahoma's three ogg-drying plants, at Chickasha, Shawnee, and Muskogee, are an important addition to national defense

because dried eggs weigh only one-fourth as much as fresh eggs, keep better, and contain the minerals, proteins, and most of the vitamins found in whole eggs. About three dozen medium-sized eggs are required to make a pound of dried eggs. When eggs are dried, more than 90 percent of the water in the egg meat is removed. Dried eggs will keep indefinitely.

Dishes prepared with dried eggs taste almost exactly like those made with fresh eggs. In baking, it is not necessary to liquify the eggs. The powder is simply added to other ingredients. In making scrambled eggs or omelets, the egg powder is liquefied before cooking by adding three parts of water to one part of powder and allowing the mixture to stand for a short time.

Says Few Rubber Trees Destroyed By Malayan War N. Y. Times, January 23, Sir John Hay, authority on rubber growing, declared in an interview: So far as rubber is concerned, the "Scorched earth" policy of the British in Malaya is impossible of amplication. Des-

truction of the industry in Malaya, where 41 percent of the world's rubber supply is grown, has been confined largely, "to all kinds of plants and machinery, particularly processing plants." Even machine-gum fire could do comparatively little damage to the 500,000,000 trees. As a member of the International Rubber Regulation Committee, by which the rubber industry of the world is controlled, Sir John arrived in this country to discuss plans of the U. S. Government for accumulation of a reserve supply of rubber.

Cooking-Fat Tests Show Lard Best Meat and Live Stock Digest, January: Tests by the research laboratory of the American Meat Institute on the relative shortening values of lard, hydrogenated cottonseed oil, and compound showed the following:

Refined lard, 100 percent; animal stearing vegetable-oil compound, 74 percent; hydrogenated cottonseed oil A, 73 percent; hydrogenated cottonseed oil B, 70 percent. The shortening value of a fat may be defined as a quality which prevents batters or doughs from forming a hard, brittle mass when cooked.

Reduce Fertility Losses Potash News Letter (American Potash Institute)
January: According to Lindley G. Cook, Extension soil
conservationist in New Jersey, farmers are losing rich top
soil and valuable nutrients through wind and water erosion.

Carefully kept records of losses of nitrogen, phosphorus, and potash on tomato plots at the Soil Conservation Research Station in 1939 showed that plots receiving only fertilizer lost these three elements at the rate of \$12.91 worth per acre. Corresponding losses on the plots receiving annual treatments of manure and winter cover crops amounted to only \$0.51 per acre.

Meat Trade Statement on Supplies Meat and Live Stock Digest, January: At the close of 1941, livestock and meat supplies were large enough for military, domestic, and overseas trade during 1942, the American Meat Institute stated recently in its annual

statement on the meat trade situation. More meat was consumed in the United States during 1941 than during any other year, almost 19\frac{1}{2} billion pounds as compared with a little over 18\frac{1}{2} billion in 1940.

Bulletin on N.Y.C. Milk Marketing

American Milk Review, January: An increasing new bulletin on milk marketing problems in New York City has been published by the Cornell Experiment Station in cooperation with BAE. The contents and tables were pre-

pared by Charles J. Blanford, Cornell University. The studies revealed that during the past few years the trend has been for consumers to buy more milk from retail stores and less from retail routes. High cost of labor on retail routes and increasing efficiency of store distribution were found to be the main factors responsible for the price differential between retail routes and retail stores.

Arc Welder New Farm Shop Tool

A number of arc welders are finding their way into farm shops because of their wide application to the repair of broken machine parts and their convenience for the construction of special equipment. Most of these welders

struction of special equipment. Most of these welders are operated at 220 volts to avoid line disturbance and should be wired int the main circuit with a separate feeder. Usually the operation of a 150-ampere capacity welder is permitted on a 3 or 5 kva transformer.

Special permission is required from the power company if the use of a larger welder is needed. By means of the arc welder farm machinery frequent can be repaired without dismantling or bringing into the shop. Farm trailer pea dusters, barrel stands, elevators, and potato pilers are among the list of special equipment that has been constructed on the farm with the aid of the arc welder. (Idaho Extension Leaflet, Rural Electrification No. 24)

Hemisphere Nations Join Dairy Committee Dairy World, January: Seven nations of the Western
Hemisphere, including the United States and Canada, have
already organized their national memberships of the InterAmerican Committee for the Dairy Industries, it was an-

nounced by Roberts Everett, Chairman of the Committee's Governing Board. The nations represented in the Inter-American Committee now include Canada, Dominican Republic, El Salvador, Panama, Paraguay, United States and Venezuela.

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February 6, 1942

Ga. Nutrition Programs

Athens, (Ga.) report in Atlanta Constitution, January 28: Representatives of 41 Federal and State agencies mapped last night a program for overcoming nutritional

deficiences throughout Georgia. They comprise the State Nutrition Committee. Group sessions were arranged to discuss surveys of community nutrition needs, and use of various organizations in coordinating food distribution and in elementary dietary instruction. A summary of reports from the groups will be used as a basis for suggestions to county committees.

Food Rations in France and Italy

Berne, Switzerland, report in New York Times, February 2: Evasions of food regulations in Italy that came to the courts numbered more than 20,000 in November and December, the Minister of Justice told a Cabinet committee

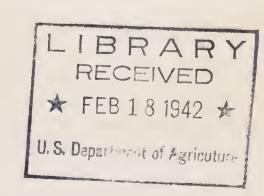
on supplies, under Premier Mussolini, that met in Rome yesterday. In Vichy, the French Minister of Justice teld the Cabinet of Marshal Petin that France must become more law abiding with reference to food supplies. Continental Europe today is forced to aid in feeding the armies of the Axis powers to the limit of each producing country, whether occupied or unoccupied. In Italy the Cabinet committee imposed a "single menu" for hotels and restaurants on Saturday evenings and all day Sundays, consisting of soup, vegetables, and fruit, and said meat may be served at one meal a week only. Corresponding restrictions are applied to Italian households.

1941 January-September Foreign Trade Washington report in New York Times, January 29: The Foreign Commerce Department of the U.S. Chamber of Commerce has reported that the total value of combined United States exports and imports for the first nine

months of 1941 were \$5,633,383,000, the highest since 1929.

Rose-Hip Sirup CTPS report from London in Washington Times Herald, February 3: Sirup made from rose hips (a substitute for fruit juice) was placed on the market in Britain yester-

day. Nine firms have produced 400 tons, making 600,000 bottles. Rose-hip sirup is said to contain plenty of vitamin C.



New AMS Farm Labor Statistics Project

AMS News, January 15: The first country-wide mail survey on the expanded farm labor statistics project was made as of January 1, by the 41 field offices of the Agricultural Statistics Division. The farm work inquiries

were addressed to approximately 325,000 farmers, and are being summarized in the field offices. A primary objective of the project is to establish reasonably accurate estimates of farm employment, both family and hired workers, by States, at monthly intervals.

Nebraska 4-H Food Goals Nebraska Extension Service: Nebraska 4-H Club members have individual goals in the Food-for-Freedom campaign. Every 4-H Club member who attains four goals will be awarded a certificate of merit as a 4-H

Freedom Food Producer. Here are the goals.

(1). Plant at least 2,000 square feet of garden and produce not less than \$25 worth of food materials for year-round food supplies, or can 100 quarts of home-grown fruits or vegetables, or raise 2 thousand pounds of pork, or produce 5 thousand pounds of milk per cow, or 200 pounds of butterfat per cow, or produce 400 pounds of poultry, or produce 600 dozen eggs, or produce 200 pounds of poultry and 300 dozen eggs. (2). Exhibit at a local, county, district, or state fair. (3). Take part in three public demonstrations or represent a club on a judging team. (4). Attend 80 percent of the regular club meetings.

New Jersey Farm Machine Repair Course

New Jersey Farm and Garden, January: Fourteen N.J. Rural high schools are conducting, in their vocational agriculture departments, farm machinery repair courses for older, out-of-school youth. Several others

will initiate similar courses, together with a variety of other courses dealing with crops that New Jersey needs to meet her quotas in Secretary Wickard's program. The vocational agriculture teachers' contributions to the victory drive are being augmented by Future Farmers' activities in lining up enrolees in the courses, disseminating information, and other cooperative efforts.

Branch Food

R. E. Selzer, in Quick Frozen Foods, December: There Locker Plants

are available on the market at the present time, semi-portable, prefabricated branch locker systems. These are shipped knocked-down, and are easily assembled in a relatively short time. The capacity of these prefabricated units usually runs from 100 to 200 lockers. The locker plant must be conveniently located. In small towns the best spot is in the business district, or as close to the usual trading center as possible. In larger cities there may be the possibility of locating "neighborhood branches" to serve each particular section of the city, the complete service plant being located as conveniently as zoning ordinances permit.

Calif. Citrus

California Cultivator, January 10: Utilization of By-Products

California citrus fruits in by-products channels has increased at such a rapid rate in recent years that now about 15 percent of the total state citrus crop is disposed of in that manner, according to W. E. Baier, manager, research department, California Fruit Growers Exchange.

Priorities, Supplies for Agriculture The Office of Agricultural Defense Relations of the USDA sums up supplies and priorities for agriculture:

On most items farmers do not need a priority rating and should attempt to buy through regular channels. If

suppliers within the purchasing area of the farmer do not have items requested, the OADR, USDA, Washington, should be notified through usual channels, giving

items desired, and names of firms which did not have a supply on hand.

Virtually all machinery and implements of a strictly agricultural nature used in production of agricultural commodities are covered in a blanket priority order assigning high defense rating to manufacturers to enable them to secure materials. The order limits production of farm machinery to approximately 83 percent of 1940 for new machinery, and roughly 150 percent of 1940 for repair parts. Different quotas are assigned different types of farm machinery. The heavy demand for repair parts may exhaust some items. Farmers should order repairs early as there might be a serious shortage of parts later in the year.

Crawler-type tractors are not included in the farm machinery order.

Military and defense construction is taking practically all production of this tractor. Farmers must make application to the War Production Board for a crawler-type tractor, justifying the need. Forms will be supplied by field offices of the WPB, or the OADR, USDA, Washington. The OADR, will handle the application with WPB if requested to do so. Electric motors are in the same category as crawler-type tractors.

Since priorities are provided to the warehouse, farmers do not need priority ratings to secure farm hardware, but should order through their usual channels. There is no priority on lumber, cement, stone, rock, tile or glass, but it is not advisable to attempt any big construction jobs if substantial amounts of critical materials must be obtained.

Farmers do not need a priority rating for fertilizers but should order through usual suppliers. It seems reasonably certain there will be an adequate supply of potassium. The amount of superphosphate available probably will be limited by military requirements for sulphuric acid. Sodium nitrate is under allocation by the War Production Board and is being rationed to fertilizer manufacturers.

Farmers do not need a priority rating for insecticides, fungicides and disinfectants, and should order through usual suppliers. Orders for fumigants should be placed as soon as needs are known. Tight spots are in arsenicals, rotenone and nicotine sulphate.

New Demand
Shark oil has created a new industry/the Pacific
for Sharks
Coast. Oversized shark livers have been selling for \$1 a
pound. Oil derived from the livers is excellent for the
lubrication of high precision mechanisms, such as airplane bomb sights,
machine guns, and intricate equipment demanding high speed and accuracy.
Other purpose is its use in the medical world for its vitamin A content.

Is Poultry

R. G. Jaap, Oklahoma A & M College, in Farmer-Crossbreeding Stockman, January 15: There are more fads and fancies in crossbreeding than in other phase of market poultry production. On the eastern coast, it is the Barred X Red cross. In Oklahoma the Australrop X Leghorn cross is currently popular. In the Arkansas broiler section, crossbreds cannot be sold at any price.

From reports of experiments, our own experience, and studying market fancies, there seems little justification for indiscriminate crossbreeding in producing table chickens to fill market needs. No one breed has all the desirable characteristics. Crossbreeding should be considered not from the standpoint of which breeds should be crossed but what qualities present in different strains of the breeds may be combined to produce the best table chicken most economically. Data indicate crossbreeding is not advisable for production of layers.

Michigan
Bull Calf
Agreement

Hoard's Dairyman, January 25: From a small beginning three years ago, the Michigan State College baby bull calf agreement program in the past year placed 975 baby bull calves from high producing dams and proved sires.

From a program designed to combat stockyard bull distribution, it has grown

into a service agency working for practical dairy farmers.

There are at present about 200 owners of proved bulls from high producing cows who have agreed to this plan. It is left to the discretion of the buyer to select calves from the bulls on the basis of their records alone. In other words, a bull proved poor in a 450-lb. herd may very well be a bull proved good in a 300-lb. herd. An analysis of the records is left to the buyer.

More Poultry Less Cotton in Miss. Delta J. E. Stanford, in Southern Agriculturist, January: One of the most surprising and pleasing changes of the past ten years in farming practices in the Mississippi Delta is the large amount of good poultry that one sees

in every community in that once all-cotton section. A small to medium size farm flock of good hens is now the rule rather than the exception on farms where the average farmer a few years ago knew as little about poultry as the average poultryman of the North knows about cotton.

With cotton planted up to the very doorsteps, there was little place for poultry. But such is not the case since the AAA program has been in effect. Thousands upon thousands of farmers are finding that a flock of 50 to 500 good hens fits well into the program for diversified farming and better living.

Walk-In Coolers
Save Food, in c
Cut Waste a 50

REA Electro-Economy Supplement No 5: The walkin cooler of 200 to 300 cubic-foot capacity, including a 50-to 60-foot zero box or sharp-freeze compartment, used extensively in the far West for a number of years,

is becoming more popular in other regions.

Construction of walk-in coolers follows three general patterns. Except for hardware and the refrigeration mechanism, the cooler may be completely home-made, using local lumber and insulating material such as sawdust, wood shavings, ground corncobs or stalks. Others are partially home-made, with doors, door jambs, and other cabinet work obtained in finished form. Complete coolers knocked down for construction on the farm are also available.

Because of the variety in styles and sizes of walk-in coolers and because of rapid changes in material costs it is impractical to quote prices. However, if there is sufficient demand to make possible quantity production of refrigeration equipment and other necessary materials, 300-foot coolers may become available within a price range of \$200 to \$300, depending upon size and style. Costing about \$3 a month to operate, depending on usage and size, coolers are proving excellent investments on many farms.

DAILY DIGEST repared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture. → FEB 1 8 1942 A U.S. Department of Agricuture February 9, 1942 Mitrate Farmers who expect to get their fair share of of Soda nitrate of soda are urged to look to their regular Allotted sources of supply, the USDA says. Nitrate of soda is being allocated by the Government to manufacturers in ratio to shipments they received last season -- through in reduced tonneges. This method of distributing nitrate of soda, so important to agriculture, is the fairest possible under the circumstances. Ban on Hemp Science Service release, January 26: Hemp growing Growing for in the United States, which the U. S. Bureau of Marcotics Marcotic Use has tried to stop to prevent marijuana addiction, is now going to be allowed. A War Production Board order prohibits use of domestically produced homp seed for any purpose except growing of hemp fiber or of additional hemp, soed. The stated reason is to conserve and increase the domestic home surply. In the past the bulk of

prohibits use of domestically produced homp seed for any purpose except growing of hemp fiber or of additional hemp seed. The stated reason is to conserve and increase the domestic hemp surply. In the past the bulk of this country's hemp requirements for rope and sacking have come from the Philippines. The bureau will police the areas where the hemp is produced and believe it will be possible to central hemp growing so that none will be diverted to the making of "reefers" or any other form which could contribute to narcetic drug addiction.

U.C. Summer Courses Geared to Wartime University of California Clip Sheet: Geared to needs of students in a world at war, the 1942 Summer Session on the Los Angeles campus of the University of California will stress political science, geographical

and historical background courses at the six-week session scheduled to open June 29, according to Dr. J. Harold Williams, Dean. Courses in foreign relations of the United State will place special emphasis on contemporary problems as will another course in international relations of the Far East. Other courses will deal with governments of Latin America, colonies in world politics, American government, and parliamentary governments.

Short Crop Year for Apples Virginia Entension Division News, February: The year 1942, according to the production cycle, will be the short crop year for apples in eastern producing sections, and indications at present are that peach

production will be below the large crop of last year.

Dry weather conditions during a large part of the 1941 growing season had a decided weakening effect upon the trees and buds. On the other hand consumers will have more money to spend and are becoming less interested in low-grade fruit. More and more they are demanding fruit of good size, high color, and good quality.

Wire-Wrapped Concrete Pipe is Stronger J. W. H., in California Cultivator, January 10: Tests at the California College of Agriculture, at Davis, show concrete pipe wrapped with wire is three times as strong as the nonwrapped type. The wire is

applied under tension to the exterior. A covering of mortar is then applied as a protective agent. Under one test a 12-inch pipe held up under a pressure of 25,200 pounds per running foot. By comparison the ordinary type of concrete pipe collapsed under a stress of 7,760 pounds. The college plans to carry the study further before arriving at definite conclusions.

Vitamins Help Poultry Industry R. L. Holman, in Southern Agriculturist, January:
About the biggest thing that has happened to the South's
poultry industry in the past two and one-half decades
is vitamins. Through vitamins and use of substitutes for

sunshine we can raise chickens all together inside a house. We have poultry farms where laying hens are confined to batteries inside houses and never set a foot to the ground. The birds get vitamin D in codliver oil as well as sunlight.

Credit Aid in Food for Freedom Plan The Department, in a statement to the State USDA War Boards, said: Results of a recent survey show farmers in some sections of the country are not completely informed of credit facilities available in

Food for Freedom production.

Loans are available through FCA for a wide variety of purposes both to individual farmers and to farmers' cooperative associations. These include long-term mortgage loans by the Federal Land Banks and the Land Bank Commissioner and short term money for production purposes.

Assistance for farm families displaced by Government purchase of land for army camps and other defense projects is available from state defense relocation corporations. They give information on available farm land, provide trucks or other transportation for moving, and make loans or grants to cover moving costs or subsistence expenses.

Through FSA low-income farm families may obtain rehabilitation loans and loans for homestead projects and tenant purchase. Farmers who cannot get credit elsewhere may obtain loans for purchase of seed, tools, live-stock, and other equipment.

Loans are made by CCC on commodities harvested or processed form but no real estate or production loans.

Highlights of the credit survey are: 70 percent of the replies indicated additional credit will be needed by farmers to meet production goals in 1942. About 93 percent indicated existing credit facilities, governmental or prevate, are adequate to supply additional credit that may be needed to enable farmers to meet these goals. About 7 percent would be unable to obtain additional credit they need from existing agencies. These farmers account for about 5 percent of normal production. Only 6 percent indicated there is need for an additional type of federal credit.

"Gully-Washers" Cause Rapid Soil Erosion Science service release, January 29: Torrential rains, called "gully-washers" in some parts of the South, are largely responsible for deepening and spreading of gullies in southern fields, says Stephen S.

Visher, Indiana University, after a study of data of the U. S. Soil Conservation Service and U. S. Weather Bureau.

Soil erosion, blamed on slack farming, lack of permanent ground cover, etc., involves also one neglected factor — intensity of individual rains, Visher believes. Total annual rainfall does not tell the whole story: 50 inches of precipitation distributed as a hundred half-inch rains will not do a fraction of the mischief caused by the same amount concentrated in ten five-inch downfalls. The Gulf States have heavier single rains and more of them than any part of the North with comparable annual precipitation. Visher's analysis will be presented in the forth-coming issue of the Journal of Geology.

Bread From Wheat Germ, White Flour

The USDA Coreal Laborator has made satisfactory breads with 15 percent wheat germ and 85 percent white flour. Such breads contain most of the vitamins of whole wheat bread and about 70 to 80 percent of the minerals.

According to BACE, a wheat germ bread would go far toward meeting nutritional ideals as set up by the Matienal Mutrition Conference.

Pea Aphid
No Threat
To Potatoes

Main potato growers need not fear injury to potatoes by the pea aphid moving from pea and clover fields to the potatoes, says W. A. White, BEPQ. He reports a special study by the USDA and Maine Experiment Station

during the summer of 1941 in Aroostook County, to determine the source of various kinds of aphids which attack potatoes and spread potato diseases, showed the pea aphid was not found on potatoes. The survey was made by taking samples of aphids from 25 fields planted to peas, potatoes, and clover. Two types of fields were adjacent fields of peas, potatoes, and clover, and adjacent fields of potatoes and clover with peas not growing within a mile. Collections from the three crops were made before and on two occasions following harvest of the peas.

Save Egg Cases
For Repeat Uses

S.C. Extension Service: Large shipments under lend-lease and rapid changes in the egg marketing situation are causing serious reduction in the supply of

used 30-dozen egg cases available to poultrymen along the eastern scaboard. The poultrymen have for a long time depended upon used egg cases coming into eastern and southern markets from the Midwest and far ****t. With egg production increasing in every section, the supply of used cases has been sharply cut. E. H. Talbert, extension marketing specialist, suggests all retailers, hotels, cafes, and others that use large quantities of eggs save empty egg cases rather than discard or burn them. Saving egg cases for resale to producers will conserve materials that are now or soon will be scarce, such as nails, lumber, and cardboard; and will assist poultry farmers in producing and preparing more eggs for consumption here and in allied countries.

Sheep Treatment Saves Supply of Catgut Phenothiazine and pasture sanitation help sheep and the Nation's catgut supply from the destructive nodular worm. Catgut (made from the intestines of sheep) is used for surgical sutures, and is needed in wartime

to sew up wounds. Intestines are also used for sausage casing. Nodular worms cause knots or nodules to form in the intestinal wall, and intestines

so affected are useless for suture material or casing.

Meat packers report losses caused by nodular worm to intestines amount to several million dollars each year. Phenothiazine is the most effective drug for removing adult nodular worms, and has the added advantage of removing other parasitic intestinal and stomach worms at the same time. Young worms inside nodules cannot be killed by phenothiazine or other drugs. Detailed information on control of nodular worm is available from BAI.

Urges Wider
Use of Milk
By-Products

University of California Clip Sheet: Thousands of tens of proteins, minerals, and other valuable food substances are wasted each year because the by-products of milk are not finding their way to the nation's

dinner tables, according to G. A. Richardson, dairy industry division, California College of Agriculture. Many milk by-products are high in food value and could be used in fortifying bread and flour, confections, canned and dried soup, meringues, frostings, and other food products. Among the more important of these by-products, he listed separator milk, casein, and whey.

Bacteria Killed by Sound Wave Electricity on the Farm, February: A new short wave sound generator that kills bacteria and other micro-organisms has been developed by A. P. Krueger,

University of California. The device consists of a nickel tube within a magnetic field, activated by electrical impulses. The tube is first elongated, then contracted by the alternate pulls of the magnets. So rapid is this oscillating motion that the nickel tube emits sound waves with a high frequency of 9,300 cycles a second. Staphylococci, the bacteria that cause boils and carbuncles, were all killed by this penetrating sound. Bacteriophage, a virus disease of bacteria, was also destroyed, and the cellular secretion from which bacteriophage is formed was made permanently inert.

Nicotinic Acid Amide for Pellagra Remedy

A.M.A. Journal, January 10: Schroeder and Dramoff (in Leipzig medical journal) state that pellagra in Bulgaria occurs endemically in regions in which maize and wheat grits are the only sources of protein in the

diet. These vegetable proteins require the pellagra preventive substances for their proper utilization; that is, the intake of large quantities of maize or wheat grits increases the requirements for the antipellagra factor. The treatment of pellagra has been greatly simplified since the discovery of the pellagra preventive substance.

AILY DIGEST

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February 10, 1942

Citrus Oil

American Fruit Grower, January: Citrus growers should be interested in two new patents recently issued to Philip Kaplan of New Jersey. They concern the use of oil from grapefruit seeds as a lubricant and finishing product in textile and leather industries.

Canada to Get Rating in U.S. Priorities Washington report to New York Times, February: 10 Canada and the United States yesterday joined in the war production offort through an arrangement under which companies in Canada engaged in war or essen-

tial civilian work are placed on an equal footing with U. S. companies.
"The steps taken yesterday to facilitate extension of U. S. priority assistance to Canadian firms," the War Production Board said, "constitute a practical application of the general policy of coordinating the war efforts of the two countries." To facilitate handling of Canadian priorities, a U. S. priority specialist has been located at Ottawa.

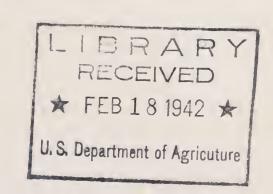
Lightning Valled Soil Fertilizer

Pittsburgh report in New York Times, February 10: Lightning, long-time foe of man, is revealed as helping to produce food by fertilizing the soil and also/keeping the earth's battery charged. Two

illion lightning strokes — about seven for every square mile of earth — perform useful work during the electrical storms that occur each year, says the Westinghouse Engineer, quarterly journal published by the Westinghouse Electric and Manufacturing Company. The action of the thunderbolts in streaking through the atmosphere with a speed of . 50,000,000 miles an hour releases nitrogen from the air. In the form of nitric acid, the nitrogen falls in rain drops and enriches the soil. Through this process, lightning annually produces nearly 100,000,000 tons of nitric acid, more of this soil builder than is manufactured by all the world's fertilizer plants.

WPB Restricts Utilization of Vitamin A Washington report in New York Times, February 10: The War Production Board last night banned non-essential use of vitamin A. Henceforth, use of vitamin A units in tablets, capsules, pills, or

liquids will be limited to doses prescribed by medical authorities as necessary for specified purposes. WFB officials said vitamin A is especially essential for the air corps, as a deficiency often causes night blindness and reduces resistance to infection. Main source of



the vitamin in the past has been fish-liver oils imported from Japan and Norway, with some from domestic vegetables and dairy products.

Beginning February 9, the order prohibits manufacture of multivitamin preparations containing more than 5,000 units of vitamin A in
the largest daily dose recommended by the label or accompanying instructions. The health supplies branch points out that the average human
body cannot absorb more than 5,000 units a day. The restrictions do
not apply to preparations containing only vitamin A or containing
vitamins A and D where the vitamin A potency is 25,000 units or more in
the recommended daily dose. Such a preparation is a therapeutic dose
for persons suffering from unusual deficiency.

Beginning April 10, the order prohibits manufacture or preparation of feeds which, in the form recommended for consumption, contain more than 1,000 units of vitamin A per pound, derived from fish or fish liver oils.

Md. Land Army Course for Women Begun

College Park (Md.) report to New York Times, February 10: Formation of a land army of women for service on the farm front began yesterday with the opening of practical extension courses in gardening,

poultry raising, and dairying by the University of Maryland. The program was adopted in response to the American Women's Volunteer Services of Washington, said Dr. T.B. Symons, director of the Md. Extension Service. He said, "The war outlook is such now that we have no way of knowing how many women we will have to call to the farms, not to mention the help of boys and girls." The course for women will cover a four-week period, with all-day classes twice a week. They will have an opportunity to learn to handle vegetables from field to factory. The course will be directed by C.H. Mahoney, head of horticulture, Morley Jull, head of poultry, and K. L. Turk, head of dairying.

Electricity in Bee Production

G.W.Kable, in Electricity on the Farm, February, tells how H.A.Merrell, New York farmer, uses electricity in raising bees. The newest piece of electrical equipment is the honey bottler. It con-

sists of a 50-gallon water jacketed honey drum with a five-kilowatt heating element in the water for warming the honey to 160° for bottling. The purpose of the bottler is to save time, cans and one handling of the honey.

Another novel piece of equipment is the sugared honey liquefier. It is a galvanized iron box with 1,200 watts in heating elements below the iron grating that holds five 60-pound cans of honey. The temperature is held at 1400-1600 by a thermostat. The oven has a wood housing around it with four inches of insulation between. The time needed for liquefying crystalized honey varies with the outside temperature.

Ceiling for Tractor Tire Retreading Implement and Tractor, January 31: OPA has put a ceiling on prices charged by dealers for the rebuilding of rubber tires for tractors, trucks or passenger cars. The move was considered necessary

to halt possible profiteering that might result from the greatly in- . creased demand for recapping and retreading.

The increased demand has been felt strongly since the sale of new tires and tubes has been drastically restricted by government order.

Bettar Houses for Poultry in Illinois Extension Service Review, February: No more makeshift hen houses on Illinois farms, judging from the response of farmers in 84 counties reached by the extension better-poultry-housing campaign.

It has been a "meetingless" project, carried out by poultry specialist H. H. Alp in cooperation with Illinois extension editors and the university radio station, WILL. It was decided to conduct a campaign by press and radio to sell landlords and tenants on the idea of building a model hen house—a straw-loft type of structure, 20 by 40 feet, with no-draft ventilation and a raised concrete floor to insure no dampness. During the campaign, mail requests quadrupled for blueprint directions for building the straw-loft poultry house. From these extension plans, 184 farmers built poultry houses. As a follow-up 1,000 poultry-house calendars have been issued monthly. Mr. Alp prepared a different theme for each month's illustration. It provides monthly contact throughout the year and permits a new idea for each month.

Planned Agriculture

T. Swann Harding, in Common Sense, February:
Our present Department of Agriculture is a very
different institution from the one we had in 1917-

18. It is essentially an over-all planning agency, a board of strategy, a social and economic instrumentality that enables officials, scientific specialists, professional agriculturalists, and plain dirt farmers to work together cooperatively using democratic processes. Local, State, and Federal agencies and employees work as one. The dirt farmer has his say just as much as the bureau chief. Through long-organized local committees which have functioned for some years it is possible for the entire agricultural industry to be reached with information in twenty-four hours. Never in the history of the world has a large industry been so well organized as American agriculture.

Farm Machine Parts That Wear Fastest Wisconsin Agriculturist, January 24: Experienced implement warehouse clerks in Wisconsin
have noted some of the "fast moving parts" which
require more frequent replacement in ordinary farm

usage. This is not a complete list, but shows the most common things which dealers get inquiries for. Platform and elevator apron; carriage and machine and guard bolts; pitman boxes and bushings; disk harrow bumpers; drive chains and links, attachment links, coupler links and steel roller chains. Check rower wire and open links; cultivator shovels and sweeps; mower grass boards, grass sticks and guards; hay loader carrier slats; knife head caps and guides; knife and sickle clips; knife and sickle heads; corn binder knives. Ledger plates; mower pawls and pawl springs; harrow peg teeth; pitman straps; wood pitmans; reel arms and reel boards; rivets; implement-type roller bearings;

rolling coulter blades; plow shares; cultivator sweeps; teeth for spring tooth cultivators and spring tooth harrows; hay rake teeth; tubes for grain drills; assorted washers; and wearing plates for knives.

In tractor repairs the most frequent calls are for sleeve assemblies, motor gaskets (head and manifold) valves and guides; rod bearings; radiators; clutch parts; governor bushings; magneto parts, and spark plugs.

School Lunch Frogram in Massachusetts New England Homestead, January 10: More than 115,000 youngsters in Massachusetts public and parochial schools are now being reached by the school lunch program, They eat each month approximately food, according to figures just released from the

43 million pounds of food, according to figures just released from the state SMA office. Miss May E. Foley, nutritionist from Massachusetts State College, who serves on the advisory committee for this program, states this is an important phase in the nation's program to build healthier people for our defense program.

Fruit Diverted by Yakima Valley, Wash. Better Fruit, January: Much progress in diverting soft fruit tonnage from fresh fruit markets to canneries and freezing plants have been made in recent years in the Yakima Valley. This has relieved

the fresh fruit markets of excess tonnage and given the growers better prices than they otherwise could have obtained. In 1941 the valley shipped 2,768 cars of soft fruit to the fresh markets and the equivalent of 6,064 cars was canned or frozen. This is a far greater proportion of the crop than was diverted from fresh consumption in any previous year. The total tonnage of soft fruits canned was 89,750 tons.

First U.S. Home, Farm Safety Conference The first National Home and Farm Safety Conference will be held in Chicago February 17 and 18, the National Safety Council announces. Objectives of the conference are: To focus attention

on the seriousness of home and farm accidents; to provide opportunity for the many national organizations concerned with home and farm problems; to help plan and aid in a nation-wide program of safety; to provide a permanent arrangement whereby groups of organizations whose activities are related may better coordinate their programs of safety. Of some 37,500 persons killed and about 5,000,000 injured each year, more than one-third are in homes and on farms. In 1942 we face the prospect of an accident toll of 100,000 deaths and 10,000,000 injuries.

DAILY DIGEST

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February 11, 191:2

Farm Work
Becoming Active
in South

Weekly Weather and Grop Bulletin, February 11:
With warm weather, much sunshine, and little rainfall,
outside operations on farms made good to excellent progress
in the Southern States and early seeding is reported.
Potato planting progressed in east Gulf sections and

some was done during the week as far north as South Carolina. In some southern sections early gardening has become active. In the Southeast, particularly Florida, low temperatures and lack of adequate moisture retarded growth and frost damage to tender vegetation is reported southward to the southern interior of the peninsula. In the west Gulf area, while conditions were favorable for field and garden work, wain is needed for proper germination. Some corn has been planted as far north as central Temas.

From the central Mississippi Valley eastward, frequent rains and wet soil were unfavorable for outside work and little was accomplished. In the more eastern States, rains were helpful, not only in conditioning the topsoil, but also in replenishing water supplies. In central sections, warm days and cold nights resulted in alternate freezing and thawing, but damage to winter crops appears light.

In the Great Plains, while January was deficient in precipitation, previously stored soil moisture is abundant and the general outlook is still favorable, although the topsoil is becoming dry in some sections. Over western grazing country, continuation of milk, open weather was favorable for livestock; open ranging was facilitated and only light feeding necessary in many areas. Because of continued warmth, egg production is satisfactory and increasing. Conditions were favorable for lambing, except that frequent rains in the Pacific Northwest were detrimental. In California heavy rains caused local flooding in the north where the soil is too wet to work, while in southern sections severe drought has developed.

Moisture Proof Film Keeps Fruit Development of a new technique in wraming oranges and other citrus fruits, employing pliofilm, makes possible preservation of these products for months. Tests in the laboratories of the Florida Dimeriment

Mass. Beng's Disease Campaign Editorial in New England Homestead, January 10: The report of Dr. Mohler, BAI Chief, to the Livestock Sanitary Association in Chicago in December, indicated considerable progress in the calfhood vaccination

program. Cooperating with BAI, officials of the Division of Live Stock Disease Control of Massachusetts are now enrolling owners of cattle in the new program for control of Bang's disease through vaccination.

Pennsylvania Spray Rings O. D. Burke, in Extension Service Review, February: Farmers of Potter County, Pennsylvania developed a commercial type of spray ring capable of supplying

their needs. Four communities were organized to try out the plan in 1939. The 4 rings covered some 670 acres and more than a hundred farms. In 1941 there were more than 50 rings in the State, and the movement had spread to New York State. One thing that made possible successful operation has been the finer grades of bluestone and hydrated lime from which bordeaux mixture can be made more rapidly than in the past.

Acreage necessary for successful operation cannot be definitely set, but the closer the acres are together and the larger the fields, the lower the price per acre may be. On less than 150 acres, \$1.50 an acre for each application is suggested. Between 150 and 165 acres \$1.55 and above 175 acres the price can be \$1.50 and still give the operator a margin of profit.

Indian
Marketing
Cooperatives

Cooperative Digest, January: Ten years ago the Indian was being referred to as a "vanished race." Since 1934, however, thanks to a higher birthrate and a decrease in disease, the Indian has been on the increase.

Today there are 335,000 Indians in the United States, many of whom have turned to cooperatives as a means of upbuilding their economic welfare. Nore than 100 Indian co-ops, many of them in Minnesota and New Mexico, now provide marketing facilities for fish, wild rice, maple syrup, blueberries, handicraft work.

Kudzu Mends Eroded Lands Wellington Brink, SCS, in Better Crops With Plant Food, January: The Mation, and particularly the South, is rapidly learning that kudzu mends tattered lands.

Approximately 200,000 acres of kudzu have been established in the South, if we include last spring's planting. But there are at least 10,000,000 other acres that ought to have the soil protection that hudzu used in rotation, can give them. R. Y. Bailey, of SCS who is in charge of agronomic work in seven Southeastern States, discovered, developed and defined the place of hudzu in southern agriculture.

In 1939 a total of 15,000,000 kudzu seedlings for transplanting were produced in nurseries. The next fiscal rear, 26,000,000 seedlings were sent out by the nurseries. Production in 1941 numbered 30,000,000. And during the 12 months beginning the first of July the output is expected to jump to at least 40,000,000.

From a well-established root, the vines often grow 40 to 60 feet in a single season, producing a profusion of very large leaves. It not only stops abruptly rain-wrought ruination of agricultural lands, but also can be fed and grazed and cut for hay during its work of building back.

Plant Quarantine OBF Digest of Congressional Proceedings: President Legislation Roosevelt has signed a bill H.R. 4549, to provide, as a plant quarantine measure, for regulating, inspecting, cleaning, and disinfecting railway cars and other vehicles, and materials, entering the United States from Mexico.

Waste Organic Products for Horticulture Florists Exchange, February 7: The recent reference to the fact that peanut shells are being ground to powder and sold as a soil conditioner reminds us that one of the largest New Jersey dairy concerns has for years

used peanut shells in the cowsheds, the combination of cow manure and shells being dried and marketed. Ground peanut shells also are being used as a base for some of the insecticidal dusts, notably in California orchards. Some north New Jersey nurserymen and gardeners have been utilizing the waste product of factories making tannic acid, derived from tea. Another New Jersey factory product, not so far as we know dried or treated for sale, consists of wheat bran. By some fungus process enzymes are entracted, being utilized for mixing with starchy foods, particularly, in prepared dog foods.

Buckwheat hushs could be used horticulturally other than for packing bulbs, as rotted down they, like other grain refuse, without doubt contain hormones and vitamins, as well as nutritional elements.

Urges Truck, Bus Owners To Report

Federal Works Agency release: An intensified campaign is under way to complete the national truck and bus inventory immediately, Public Roads Administration has announced. About 50 percent of the Nation's trucks

and busses have been reported. The inventory is being made for the Mar Department, and because of the war its early completion is urgent. Several recent requests for information from the inventory could not be not because of the delay in collecting and analyzing the questionnaires. A defense agency asked, for example, for a list of trucks of a particular type needed in expanding production of industrial alcohol for war use. Another urgent need is in estimating tires and vehicles needed as replacements in essential services.

Small Fruit Production in 1942 George M. Darrow, USDA, in American Fruit Grover, January: For a third successive year prospects indicate a very large acreage and crop of strawberries, 201,000 acres in 1912 as compared with 213,000 acres in 1911 and

and 200,000 in 1940. The actual 1941 crop was reduced severely by drought, and this, of course, may occur again. However, economic conditions are such that a good crop from the entire acreage should be marketed at a satisfactory price. Too, the preserve and jam industry should use more than usual amounts of strawberries. Very large quantities have been used in the frozen food industry for many years so that now this is an established outlet for a large volume.

Electric Fence Safety Codes

Farm Journal, February: "Rules for Electric Tences" is a handbook (H 36) just issued by the Bureau of Standards. It will consitutute Part 6 of the new edition of

the National Electrical Safety Code, revision of which is nearly completed. The book gives requirements for making electric fences as safe as possible.

Substitutes
For Cor's

Editorial in Scientific American, February: Industries which require cork for any purpose are facing a production problem. Of the 150,000 tons of cork normally

consumed each year in this country, some 70 percent goes for insulation purposes, 16 percent to crown corks and gaskets, 8 percent to lineleum, and the ramainder to life preservers and other cork products including solid corks for bottles, according to Barron's.

The tiny air cells in cork give the material its insulation properties. But glass wool, rock (mineral) wool, and many wood and other vegetable fibers have similar properties and can be produced in large quantities. Crown corks and gaskets use cork in thin sheet form. Several forms of synthetic rubber are possible alternates in these fields. Very little cork is used in present-day linoleum, except in the heavy-duty types. Advances in the linoleum industry produced many satisfactory substitutes long before the emigencies of var. Balsa wood and hapok are logical substitutes for cork in life preservers as long as they can be obtained. Then there is the inflatable type, already in wide use, which depends on carbon dioxide to furnish flotation. Many liquid containers are now being sealed with metal and composition screw caps using inserts similar to those in crown caps, placing this problem in the same category with crowns, if the cork shortage forces bottlers to turn to this type of closure.

Cotton States
Weevil Control

Progressive Farmer, February: With practically every important cotton state represented, over 100 experiment station directors, entomologists, agronomists,

county agents, and other agricultural workers met in Atlanta, Ga., Jan. 8 and 9, to thresh out disagreements over the best methods of boll weevil control. Except for dissent over the practicability of picking up squares, the control recommendations for 1942 were adopted unanimously, the most important being:

1) Early fall destruction of cotton stalks, selection of fields, proper preparation of soil, seed treatment, use of early fruiting and disease-resisting varieties, close spacing, and proper fertilization...

2) The most practical direct method for control is to protect cotton with calcium arsenate at the time the plant is fruiting freely...

3) Applications of poison by mopping or dusting during the pre-square

stage are recommended as a supplementary control measure...

4) Due to the present emergency, and possible scarcity of arsenicals and equipment, it is recommended that special emphasis be placed on cultural control methods.

Improved
Orange Juice
Concentrate

A. Sedky, C. R. Fellers, and W. B. Esselen, Jr., in Fruit Products Journal, Jonuary, describe an "improved orange juice concentrate." The summary says: An apparatus was designed to concentrate sweetened or unsweetened

orange juice with a minimum amount of flavor and vitamin C.loss. A method of juice extraction from Mavel oranges was successful in eliminating most of the bitter principle usually present in the juice. The addition of sugar to orange juice before concentration gives a pleasing effect to the concentrate and does not affect the vitamin C content. If carefully prepared, a concentrate from a sweetened juice can be used successfully as a beverage base. A beverage containing 30 percent of the original juice had good flavor and vitamin C content comparable to that of fresh orange juice.

DAILY DIGEST

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February 12, 1942.

Form Annual To Feature Food for Freedom

Omaha World-Herald, February 4: Sunday, February 22, has been set as publication date for the World-Herald's 1942 Form Annual, a special form magazine appearing with the Sunday paper. The theme of this

year's Farm Annual will be Food for Freedom.

Alaska, Northern Front

Richard Neuberger, author of "Alaska -- Northern Front," in February Survey Graphic: The total land available for forming and grazing in Alaska has been estimated as being equal in area to that of the Atlantic

states as far south as Virginia. It is a myth that most of Alaska is frozen. At Fairbanks, 120 miles south of the arctic Circle, it occasionally is 1000 in the shade. North of the circle, potatoes and spinach grow. In much of the Arctic lowlands of Alaska there is less snowfall each year than in New York City. Yet despite all this, only 2,000 of the Territory's 73,000 population are farmers, and this is true even after the intensive

encouragement of the Matanuska project.

Increased food production is one of the big jobs facing Alaska today. Troops are arriving all the time, Civilians, many of them skilled technicians, have come in to build military establishments. Colonists at Hatanuska realize that agricultural output on their land, for example, must be increased at least 35 percent. Dr. Herbert C. Hanson, the manager or the colony, says that crops, herds, and all other activities will be boosted at once. He hopes not only to produce enough food for Alaska but to send produce down to Seattle on the ships which steam up the Inland Passage with contingents of soldiers. A paramount reason why Alaska must raise more produce is that the United States has no land communication with its great northern outpost.

Increased Beet Sugar Production

Business Week, February 7: Western States plan a big increase in beet-sugar output to help offset the sugar shortage. This will affect beet growers in large irrigated areas in Colorado, California, Idaho, Montana,

Wyoning, Utah and Nebraska, to sections of Hichigan, and to smaller areas in a dozen other states ranging from Washington eastward to Ohio. In these states, 55,000 farmers planting 750,000 acres in 1941 grew enough beets to yield 1,600,000 tons of sugar. In the record year of 1940 they produced 1,890,000 tons of sugar from 916,000 acres.

Every region has its own autumn harvest smell. It comes from beet pulp and from mountains of sugar beets, piled and waiting to be shoved through the washers, cuttors, boilers, dryers to emerge as pure white, sacked sugar constituting nearly a quarter of the 14,000,000,000 lbs.

needed yearly.

LIBRARY ★ FEB 1 8 1942 ★ U. S. Department or i gricuture To Be Collected Waste Material in Rural Areas AMS News, February 2: Salvage Committees in States and counties are being organized throughout the Nation by the Bureau of Industrial Conservation. USDA War Boards will be represented on these com-

mittees. Collections will be made in rural areas and will include valuable waste materials, such as old rubber, paper, rags, and all types of metal. State and County USDA War Boards will designate a representative to serve on the State and County Salvage Committees; devise plans for the campaign in rural areas; assume such responsibility for the campaign as is agreed upon by the Salvage Committees and the War Boards.

Co-ops and Marketing Agreements A. H. Lauterbach, in Nation's Agriculture, February: There is room for improvement in the relationship between milk control bodies and cooperatives. The place of the cooperative is to: (1) Organize the

farmers. (2) Guarantee him a market. (3) Guarantee him payment for his milk. (4) Correct any inefficient hauling rates from the farm to the city. (5) Correct inefficient receiving and cooling charges in the country. (6) Handle the surplus or excess milk, if necessary. (7) Build for better quality. (8) Promote efficient production. (9) Educate farmers to understand sound economic practices. (10) Promote better fellowship in farm life. (11) Do a real job of advertising gairy products. (12) Through the co-

(11) Do a real job of advertising dairy products. (12) Through the cooperation of extension people and agricultural teachers, build an intelligent generation of boys and girls to carry on a more efficient agriculture.

Save Fuel in Chick Brooding One important way to conserve fuel in the vital * * task of brooding millions of chicks during the next few months is explained by the Pennsylvania Extension Service. Brooder stoves with hovers relatively high

above the floor tend to consume more fuel than stoves with hovers closer to the floor. Curtains attached to the edge of hovers and hanging within six inches of the floor help to confine the heat closer to the stove. This applies principally to stoves using coal, wood, oil, or gas for fuel.

Under some conditions, however, curtains should not be used. If canopies are small, the curtains may get too close to the stoves and create a fire hazard. When oil or gas stoves do not have flues to carry the fumes outdoors, curtains may hold fumes underneath the hover, and create bad air for the chicks. If litters are dusty curtains retain more dust under the hovers.

Silage Without Preservative Farmers may not be able to get ample supplies of molasses or other preservatives for making grass and legume silage this year because of wartime demands, but they can make such silage successfully without

preservative if they allow forage to wilt to a lower-than-usual moisture content before ensiling. USDA tests carried on for several years have proved that high-quality silage can be made without preservatives if material ensiled contains not more than 65 percent moisture. Success with this method depends upon fine chopping ($\frac{1}{2}$ -inch length), a tight silo, and topping off with about 3 feet of heavy green material. An accurate method for determining the right moisture content is to make a simple, inexpensive forage moisture tester according to plans available from State extension dairymen or from BDI, Washington.

Save Nitrogen for Orchards

Pennsylvania Extension Service: Apple trees require nitrogen in largest amounts during the first month in spring after leaf buds start to grow. This either from reserves in the soil or from the fertilize

demand must be net either from reserves in the soil or from the fertilizer bag. Orchardists who have adopted some form of sod rotation in recent years now are in a fortune to position. They can disk or harrow this sod enough to check its growth but not to destroy it. This cultivation will hasten the breakdown of soil organic matter and release nitrogen for the use of the trees. If the supply of organic matter has been well built-up, an occasional cultivation following the one in early spring will release enough plant food to carry the trees up to the "June" drop. If terminal growth up to this time has been rapid and shows no sign of slowing-up and the crop is not excessive, no additional nitrogen fertilizer may be needed.

Fair Wages for Hired Farm Men /farm people could fix wages of married hired men, what would they do? A survey of Iowa farm opinion based on interviews of a typical cross-section of Iowa farm people, gives this answer: Cash, \$47 a month;

eggs, 32 dozen a week; milk, 14 quarts a week; hogs, two a year. The question asked was this: "What do you think is a fair wage (cash and other things) for a married hired man who has a house rent-free?" Formers differed more on "other things" than on cash. Nobody figured on less than one quart of milk a day, but many went much higher. Eggs were a problem, too. But most folks agreed on two pigs a year. A hired man's wages are more than cash. A good house, plenty of eggs and milk, may make \$40 a month a better job than \$55 in a poor house with grudging allowances of food. (Wallaces' Farmer, February 7.)

Shaw Heads N.C: College Livestock Work Southern Planter, February: Dr. A.O. Shaw, associate professor of dairy husbandry at Kansas State College, has been selected as head of the department of animal husbandry at North Carolina State College and

will report for his new duties March 1. His experience has ranged all the way from a herdsman on the Wanatchee Ayrshire Form in Washington in 1929 to his promotion as associate professor of driny busbandry at Kansas State College in 1940. He has worked closely at all times with crops and soils people, and has been credited with developing a coordinated research program of great value to the dairymen of Kansas.

New Legumes Protect Soil F. F. Lounsbury, in Successful Farming, February:
Birdsfoot trefoil is one of the newest of the new
legumes. It was found growing wild in scattered re-

gions of New York and New England, and was but recently introduced as a new perennial, adapted to the north-temperate climate, and one that would thrive on soils where alfalfa and some of the clovers would not.

The lespedezas must still be considered hot-climate plants. North of southern Iowa the seeds will not mature under the long hours of surner daylight, and the free-seeded volunteer stands which give even the annuals the virtues of perennials cannot be expected.

Known varieties of Zigzag clover are sky producers of seed, and the plants are generally propagated by root cuttines. Despite this handicap, potential value of this clover has led to numerous experiments designed to segregate more desirable strains, and to solve the problem of establishing plantings by more economical methods.

Another new clover to watch is Subterranean. It has long been a popular pasture legume in England and Australia, but its propagation in this country is still in the experimental stage. Agricultural authorities in Australia and New Zealand report that Subterranean clover requires at least a 20-inch annual rainfall for optimum growth.

Chemical War on Weeds Frankij. Taylor, in Country Gentleman, February: Experiment stations at Davis in California, Moscow in Idaho, and Corvallis in Oregon, launched experiments with chemical weed control several years ago when

herbicides began to appear upon the market. At Davis, W. W. Robbins and Alden Crafts have tested the effectiveness of nearly every available herbicide in over 500 field projects. In Idaho, Harry Spence, state weed-control supervisor, has organized forty-four weed-control districts. All the weed-control officials of the eleven Pacific-slope states have joined in the Western Weed Control Conference, which meets annually to pool tactics.

Stored Seed Experiments Scientific American, February:: Interest in good seed stocks for 1942 plantings has focused attention tests at the State Experiment Station, Geneva, New

York, on seed oats and seed barley held in storage for as long as eight years. Several stocks of both oats and barley germinated 98,99, and 100 percent, while other lots showed less than 90 percent germination, according to Dr. Willard Crosier.

While farmers are not likely to have to use seed stocks as old as these, yet in the spring of 1937 a large group of farmers in central New York found it necessary to use seed oats that had been in storage from two to four years. Evidence that oats and barley seed will retain their vigor and viability over comparatively long periods of time is reassuring in these days when the demand for increased production is so pressing.

X-Rays Show Inside Facts About Fruit American Fruit Grover, January: The interior of fruits can be revealed pictorially by a new method of photography that may prove beneficial to fruit grovers. Soft X-Ray photography shows qualities or faults not

visible to the eye. Since Johan Jonassen started experiments with this method of photography, he has learned to apply it to a multitude of developments and its capacities for exploring the values in food seem unlimited.

High Analysis
Fertilizers
and Defense

A. L. Hehring, USDA, in Better Crops With Plant Food, January: For many years the average plant-food content of materials available for making mixed fertilizers has been increasing and in the past few years

at a very rapid rate. The average total plant-food content of the mixed fertilizers made from these materials has been increasing also but at a much slower rate. Hore and more of the material containing none of the primary plant foods has been added in order to produce the old-fashioned, low-analysis grades of mixed fertilizer still demanded by many farmers.

Farmers should be discouraged from buying kainit, 50% muriate of potash, or grades of superphosphate or mixed fertilizers containing less than 18 or 20% plant food. Instead, they should buy lesser quantities of 18 or 20% superphosphate, 60% nuriate, or mixed fertilizers containing 20% or more plant food. In so doing they will not only help themselves but the country as well. Fertilizer manufacturers can cooperate by pointing out in their price lists and advertisements the savings to be made by using higher analysis grades and by discouraging the sale of uneconomic grades.

DAILY DIGEST

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U.S. Department of Agricuture

February 13, 1942

Iowa to Grow More Sugar Beets

Des Moines report in Cedar Rapids Gazette, February 5: Iowa's reviving sugar beet industry is expected to produce nearly 60,000,000 pounds

of white sugar this year. Growers in the State are scheduled to plant at least 21,000 acres of beets, four times the 1941 plantings. The American Crystal Sugar Company announced that its plant at Mason City expects to contract for 15,000 acres this year, which would produce 40,000,000 pounds of white sugar next fall. The Waverly Sugar Company, reopening a long-idle plant, will seek to contract for at least 6,000 acres, producing around 20,000,000 pounds of sugar.

Wis. WPA to Aid Farm Labor Supply Madison Capital Times, February 3: To help the farm labor shortage, the Wisconsin State WPA plans to close down projects in 30 rural counties, and will probably close rural projects in other coun-

ties, a Farm and Home week audience was told today. John S. Putz, employment division of the State WPA office, indicated that WPA workers on city projects would be asked to accept farm jobs when offered.

U.S. Buying
More British
Dominion Wool

London report to New York Herald Tribune, February 7: The United States has replaced most of Britain's lost wool trade on continental and Japanese markets, London wool circles report. The

1941-42 production is expected to show little change from the previous period, when the Australian clip totaled around 3,600,000 bales valued at about \$264,000,000, and the New Zealand clip was around 950,000 bales valued at \$70,000,000. At present there is practically no unemployment in British wool textile manufacturing plants. The industry is working to the limit of the available labor supply, though there is much idle machinery.

Oils Scarce for Paint Industry Chicago report to New York Herald Tribune, February 7: The paint and varnish industry, already cut off from supplies of essential oils from the Far East, may be further disturbed by decline of

Pacific Coast fishing due to the war, Earnest T. Trigg, president of the National Paint, Varnish, and Lacquer Asso., said yesterday. Fish oil is widely used in the paint and varnish industry as a drying agent, and a large share of the nation's supply has come from West Coast fisheries. Trigg said the Universal Trading Corp., an agent of the Chinese Government, was continuing efforts to send tung oil to the U.S. Additional supplies were received recently. Imports of perilla oil, another important dryer from Manchuria, have ceased. Large quantities of castor beans have been arriving from South America, but processing facilities may not be adequate to supply demands for dehydrated castor oil. Increases of domestic production of soybeans and flaxseed will be of limited help to the paint industry.

- 2 - February 13, 1942

REA Plan Lowers Lighting and Wiring Costs "Packaged lighting," group purchase, and the REA Service Plan have brought the cost of safe, adequate lighting and wiring within reach of every

farm family. Up to 90 percent of the cost of wiring and lighting installations can be financed through REA. Loan repayments are timed to fit peak income periods and the loans bear interest rates on the unpaid balance of 6 percent or less.

LOW COST WIRING

Conventional Method	REA Plan
9 outlets at \$2.50\$22.50	9 outlets at \$1.65 \$14.85
2-wire No. 8 service10.00	Service supplied by co-op
Fixtures9.00	Fixtures 5.00
\$41.50	\$19.85
MEDI	UM COST WIRING

Conventional Method

22 outlets at \$2.50.....\$55.00

2-wire No. 8 service.....10.00

Fixtures.......30.00

Conventional Method

REA Plan

22 outlets at \$1.65....\$36.30

Service supplied by co-op

Fixtures......\$17.50

Migrants Being Absorbed by War Industries Washington report in Christian Science Monitor, February 5: Reporting that defense migration has on the whole been successful, Howard B. Myers, WPA director of research, informed Congress that the

transient of the depression has changed into the respected war worker of today. WPA surveys laid before the Tolman committee show that unemployment among migrants today is surprisingly low. In half of 51 defense cities surveyed by the WPA, unemployment for migrant workers was 7 percent or less; in a fourth of the areas it was 4 percent or less. Only one city out of nine had a migrant unemployment rate of 15 percent or more.

Myers said relatively few of the defense migrants are coming from agricultural areas. In half the cities surveyed 9 percent or less of the migrants were farm workers. Even in the South the proportion was generally below 15 percent, and in the industrial East the proportion was almost negligible.

Marketing Problems in Wartime

A.M.S. News, February 2: More than 75 representatives of State and Federal agricultural agencies from the 13 Southern States met in the Department in January to determine action necessary

for meeting marketing and processing problems connected with wartime production goals. Roy F. Hendrickson, Administrator of Agricultural Marketing, called the meeting.

Discussions centered around immediate problems, such as the adequacy of existing southern marketing facilities, the possibility of expanding promptly facilities to handle increased production of farm products, and a means of making price support more effective. A brief mimeographed report of the meeting has been released, along with individual reports by each commodity group and the extension

group in attendance. Results of the conference will provide a basis for developing marketing programs both by the States and by the Department.

Sheep Culling Harry R. O'Brien, in Country Gentleman, February: in Wyoming Between 1929 and 1941 the average weight of a fleece clipped from a sheep on the ranches of the Warren Livestock Company of Cheyenne, Wyoming, jumped from 8.13 pounds to 11.95 pounds, an increase of 3.52 pounds. In money value, using the 1941 price of 37 cents per pound, the gain averaged \$1.30 per fleece.

During the years between 1929 and 1941 Dean J. A. Hill University of Wyoming used Warren ranches as a laboratory to perfect the method he had devised of culling sheep with poor wool and undesirable characteristics by simply feeling wool on the sheep's backs with his hands. The laboratory was huge, for the Warren clip is one of the largest in the state, 475,000 pounds in 1941, and result of an added three and a half pounds a fleece has been so striking that Wyoming has embarked on a state-wide extension campaign to cull range flocks generally.

Farm Journal, February: Vegetable ice creams Vegetable Ice Creams made by the dairy manufactures division of the University of Illinois were served to a men's luncheon group in Urbana (December 29) as a demonstration of what we can do if materials now commonly used become highly restricted or unobtainable. These ice creams were made with canned corn, canned peas, carrots, frozen spinach and canned spinach. Best liked was one made with corn; least popular, one made with peas.

To Promote Business Week, February 7: Government agencies Dehydrated will aid dehydrated food processors to build new Food Production plants, improve quality, and establish grades. In December only 450,000lbs. of dehydrated food was produced, and it fell into only eight of the 160-odd categories listed by the Department of Commerce. By way of a measuring stick, a single serving of dehydrated potatoes to the Army once a week for a year would require 7,000,000 lb. of finished product. Similarly, dehydration of only 10% of the 1962 pea crop would mean production of 8,000,000 lb. (on top of which the job would have to be done between May and August).

Here's the kind of dehydrated food the Army wants as quickly as possible (in approximate order of importance): potatoes (quality is known to be good here), onions, cabbage, carrots, beets, and tomatoes. Apples and applesauce are acceptable, too, as are any other perishables which lend themselves to dehydration without loss of quality. Soups will find a ready market, and so will eggs and milk (though the latter two are usually considered as being in a separate category). Fruits and vegetables dehydrated in whole, or in sliced form, are definitely

preferred to powder.

First-Aid Kit for Animals Successful Farming, February: It's a good investment to provide a first aid kit for farm animals. Here's a list of things that may be used to stock the first aid kit:

Tourniquet: for stopping bad hemorrhages. Cut a four-foot length of auto inner tube a couple of inches wide. Roll like a bandage and snap on a couple of rubber bands ... Bandages: worn-out bed sheets or table-cloths make ideal bandages...Cattle trocar and cannula: for emergency tapping acutely bloated cattle or sheep. Metal dose syringe: two-ounce capacity for giving medicines by the mouth, irrigating wounds. Castrating knife: one of the all-metal type that can be boiled before use on pigs and lambs. Thermometer and case: heavy veterinary type with round ball tip. Hoof knife and pincers: Standard type and well sharpened. Heavy scissors: for clipping hair away from wounds. Pig forceps: a puller of the snare type is best. Pig balling gun: for giving worm capsules. Tooth nipper: for dulling tushes on baby pigs. Sharp nosed pliers: for removing splinters. Drenching bottle: a longnecked bottle, quart size, for giving cow physics. Teat dilators: about a dozen in a closed jar. Avoid the metal type. The wax kind is best. Twitch: two-foot handle fitted with strong clothesline or sash cord.

Fair Shares

W. C. La Rue, FSA, Raleigh, N.C., in Southern
for Cotton

Planter, February: Many owners of small cotton
farm Lease
farms are absentee owners. On these farms tenants
have maximum control, furnish teams, tools and pay
the owner only one-fourth shares of cotton and one-fourth or onethird of other crops. Expenses for seed and fertilizer are shared the
same way.

There is an increasing tendency for tenants of this type to bring in more livestock. With a decrease in cotton acreage more land is going into feed and pasture crops. Good prices for milk, cream and meat animals in recent years have encouraged these cotton farmers to turn toward this additional source of income and soil improvement. Owners frequently are interested and sometimes let the tenant have all the hay and roughage provided he will feed it out on the land. Some owners invest in livestock and work it on shares. The shares of livestock going to the owner may be one-half, one third or one-fourth depending on what he contributes besides the land.

British Land /army girls of England are thousands and Army Women thousands of strong young wemen who have enlisted in this service just as thousands of others enlisted in the auxiliary forces of the English army, navy and air force.

The government gives these girls four weeks of training, either on a government farm or a private farm, where they learn as much as they can and get \$2 a week spending money. Then this regularly enlisted land army girl becomes the private employe of a farmer anywhere in England where she may be needed. She works 48 hours a week and gets \$7.40 in pay.

These "hired men" of England, who do the plain, hard work, the every-day work in the fields, are the girls that correspond to our college girls here in the United States, as well as our factory and shop girls. (Francis Flood, in Wallaces' Farmer, February 7)

DAILY DIGEST

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February 16, 1942

Churchill. on

London correspondence in A.M.A. Journal, Food Situation December 13: Mr. Churchill, at the opening of the new session in the House of Commons, said "we

curtailed our food imports in favor of munitions, and our dietary was so curtailed that it was less varied and interesting, but it was sufficient for physical health," and he hoped soon to give more meat to workers who need it most. As a precaution "we amassed stocks of the bulky articles of our diet, which amounted to double what they were in September 1939. There had been a great expansion of home production of food. In the short space of two years the area under crops had been . increased by 45 percent. Our corn harvest was 50 percent greater than in 1939. We also had large crops of potatoes, sugar beet, fodder and roots. Despite lack of feeding stuffs we had well maintained our head of cattle, both dairy-cows and meat cattle. In a nutshell, we are not getting such food as we should like but what is sufficient for maintaining health and capacity for work."

Crisis in Containers

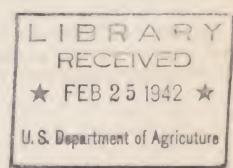
A. Randall Sanford, in Cooperative Digest, .February: Burlap stood close to No. 1 among agriculture's immediate problems as February came

in. Wool shearing started some weeks ago in the Southwest, but bags were scarce in all sections and non-existent in some. Cotton "osnaburgs" are counted upon for relief, but limited mill capacity and heavy demand for this substitute complicates the situation. Paper bags will apparently come into wide use for fertilizer and other supplies. But paper is far from abundant. An important trend back to bulk shipments seems inevitable.

Private Truck

National Provisioner, February 7: The Office Owners to Save of Defense Transportation does not intend to Transport Uses . regulate private motor carriers but its work will bring it into close contact with the trucking

operations of packers, bakers, etc., Joseph B. Eastman, director of the ODT, told the National Council of Private Motor Truck Owners last week. Pointing out that a very large percentage - perhaps as high as 75 percent - of all trucks of every kind are privately operated, Director Eastman declared that such transportation is vitally related to the war effort. He reported that private carriers were cooperating in a Pacific Coast plan for better utilization of trucks in handling military traffic.



Leather, Shoe Industry at Peak Levels

Hide and Leather and Shoes, February 7: The shoe and leather industry continues to operate at peak levels and there is yet no sign of a slowdown. Last year's shoe production figures smashed all

past records, and came within seven million pairs of the 500 million pair mark. Of this, only a small percentage was for the Government and civilian production topped all past performances of the industry. This year, the Government has said it will require twice as much footwear as in 1941, and this is expected to cut into civilian output.

Columbia Sheep Increasing Dakota-Farmer, February 7: Unusual interest is being manifested in a new breed of sheep -- the Columbia. These sheep have been in great demand for crossing on western whitefaced ewes in Montana,

and farmers in North Dakota and Minnesota are making more inquiry about them. The Columbias were originated at the DuBois, Idaho, Experiment Station about 20 years ago. Pure-bred Rambouillet ewes and pure-bred Lincoln rams were used in making the cross. Line breeding has been consistently followed until at present the accepted standard for the Columbia is a clean white-faced sheep, considerably larger framed than the Rambouillet with a fleece womewhat coarser (three-eighths blood) and a much more desirable mutton conformation.

This last fall 20 rams and six recorded Columbia ewes were shipped to North Dakota and distributed to interested farmers. Careful records are being kept and results of the use of these rams on grade ewes as compared to results from the use of Hampshire and Shropshire rams will be of interest to every sheep man. In 1940, the Minnesota experiment station made a purchase of 20 bred Columbia ewes and is starting a flock of them at the Morris sub-station.

Record Burley.

Nashville report in Western Tobacco Journal,

February 3: A record supply of burley tobacco
stocks on hand in the nation to meet the increasing

demand for cigarettes and smoking tobacco was announced recently by
the AAA Tennessee Committee. The nation will have a 3.3 years' supply
of burley with the marketing of the 1941 crop. Burley production for
1941 totals an estimated 351,200,000 pounds for the nation. This poundage will swell the carryover stocks, reported October 1, 1941, as
798,100,000 pounds, to 1,149,300,000 pounds, an all-time high.

With foreign markets closed to American tobacco producers, it is estimated that the "disappearance" of the huge supply on hand will be approximately 350,000,000 pounds, for the year, slightly less than the 1941 crop production.

British

Science News Letter, February 14, reviews:

Insect Pests

Insect Pests, by William Clunie Harvey and Harry

Hill - Chemical Pub. Co. A book about insect pests

in Britain, of interest to American entomologists because we have a

considerable number of species in common; also for purposes of comparing

our respective regional conditions.

America Can Count on Its Farmers Secretary Wickard, in Country Gentleman,
February: Farm people of America have always been
a stabilizing influence - in peacetime or in wartime. They keep their eyes on the long objective,

and work steadily toward it. In this conflict, they are working and sacrificing in order to create conditions in the world which will make it possible for men and women to live in freedom and dignity and security.

In every crisis of our history the farm people have responded to the call to think out and fight out and work out the nation's salvation. The farmers in Revolutionary times, the farmers in pioneer days underwent hardships and toil in order that this might be a land of opportunity for free men. To the same end, farmers of 1942 will turn out farm products, and serve in the civilian defense activities, and provide hundreds of thousands of young men for the armed forces.

Alongside the farm men will be the farm women, bearing the heaviest of the wartime burdens, the burdens not alone of hard work, but of maintaining the family morale.

Farm Labor and Selective Service

The leading article in February Farm Journal discusses Food for Freedom, saying in part:
Selective service deferment is to be based on four points in the following order of importance: (a)

Importance of the product (skilled dairymen, poultrymen, hog producers rank first) (b) Importance of the enterprise (General Hershey's memo points out that "certain individuals, while not employed by a single farm or agricultural plant, are in service occupations essential to agricultural operations"). (c) Importance of the skill. (d) Relative labor shortage in the area.

Wood As Substitute for Metal Business Week, February 7: Diversion of metals to defense industries forecasts substitution of treated wood for steel or reinforced concrete in varied uses, including window sashes, fire-resistant

doors, and pilework for buildings. Certain types of impregnated wood have been used for hangars and ordnance plants. Moreover, repair of British ships in United States Navy Yards has created new demands for incombustible woods, including plywood for submarines and other craft.

Treating of railroad ties, which began about 1875, is still the main item of business. Probably 5,000,000 to 6,000,000 crossties will be needed this year. And the demands that have arisen because of the war will also include treated timbers for piers, docks, and warehouses, and for extensive housing projects.

The Forest Products Laboratory is working on the problems of substituting wood for metals, and Purdue University is expected shortly to under take new strength tests on fireproofed wood. The industry is the gainer because increased labor, transportation, and other first costs make building for permanence more economical.

Phosphorus
Lack in
Orange Trees

University of California Clip Sheet: A comprehensive description of the effect of lack of phosphorus on bearing orange trees has been made public by H. D. Chapman and S. M. Brown,

California Citrus Experiment Station. Writing in Hilgardia, they reported abnormal shedding of leaves as the first symptom. The leaves appeared burned, many were dull-green, bronzed and lusterless. Spring blossoms in the following two years were small and fruit failed to set. No abnormal twig, trunk, or bark symptoms were apparent with the exception of die-back. Fruits maturing on the trees before the leaf symptoms appeared were deep orange in color, had thick rind and little juice.

U. C. Lamb Feeding Experiments University of California Clip Sheet: Results of the second year of a lamb feeding trial in which the relative merits of wet and dried sugar beet pulp, hay and grain have been tested, are

released by R.F.Miller, California College of Agriculture. Two types of wet pulp used — siloed pulp and pressed pulp — the siloed pulp proved more palatable. The lambs feeding on siloed pulp gained more rapidly and made more economical gains than those on pressed pulp. The lambs receiving molasses dried pulp made better gains than those on siloed pulp but the cost of these gains was much greater. If both dried and siloed pulp are available, the siloed pulp is to be preferred.

Lambs fed on hay and grain showed rather unsatisfacory gains, and the cost per one hundred pounds of gain with these feeds was excessive. It was found that one ton of siloed pulp has the same feeding value of 62 pounds of ground barley, 366 pounds of chopped alfalfa hay, and 35.5 pounds of cane molasses.

Food for Freedom Train to Tour Utah Feb. Mar. Utah USDA War Board: A seven-car Food for Freedom train prepared by the Denver and Rio Grande Western Railroad and Extension Service of Utah and Colorado Agricultural Colleges will

make a 20-day tour of Utah, Feb. 20 to Mar. 10, Phillip Yonge, D&RGW agricultural supervisor, and Director William Peterson, announce. Exhibits in the train will depict many phases of the agricultural program in the two states. Each of the seven 60 foot cars will contain graphic illustrations of improved agricultural practices. Half of the first car will be converted into an auditorium in which the sound motion picture, The Farm Front, will be shown. The rest of the car will be devoted to exhibits portraying national and state Food For Freedom goals. A talking mechanical man will answer questions raised by the audience and drive home the importance of soil fertility.

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February 17, 1942

Scientific Publications

Abstract of article on scientific publications, in American Journal of Sociology (January): While the publications of scientists approach in numbers

the publications of professional writers, many of the articles of the former might well remain unpublished. Excessive writing on the part of scientists results in inferior articles which are poorly written and which make no significant contribution to science. Microfilming has been suggested as a method of condensing the bulk of scientific publication, but more than this is necessary. Scientists must learn to communicate only that which is essential. The operation of a central editorial bureau which would determine which articles should be made available is suggested. This bureau would also assume responsibility for abstracts.

Calif. Farm
Machinery
Repair Clinics

Joe Crosby, in California Cultivator, February 7: Regional meetings were held in California by State and county USDA War Boards under the auspices of the Tractor and Implement Club. It

was proposed and unanimously carried that every dealer in each community hold at least one farm machinery clinic in his store or shop to educate owners and operators in maintenance of the equipment he handles. The state war board set a goal of at least 120 farm machinery repair clinics in the dealers' places of business before March 15, 1942.

The clinics will be designed to instruct and advise farmers and operators regarding the adjustment, care and repair of tractors and the farm machines used with them, also in the care of other farm equipment. Special attention will be directed towards the repair of broken parts rather than the purchase of new ones. These clinics are being scheduled so no two dealers in a community will hold a clinic at the same time. In that way farmers with different makes of equipment will be able to attend as many meetings as necessary.

Sorghum, Honey
May Substitute
for Sugar

Missouri Farm News Service, February 11:
Some of the natural sweets—honey and cane sorghum can be used effectively as a substitute for sugar
in the average family diet, says Flora L. Carl,

Missouri College of Agriculture. The use of such substitutes will not only help avoid inconvenience caused by sugar rationing, but will probably actually give the average family a better diet. Honey can be used in making breads, cakes, and cookies, in place of or in combination with sugar. Natural sweets as honey, sorghum, maple syrup, and corn syrup not only give energy but also iron for red blood, and calcium and phosphorus to build and keep strong bones and sound teeth.

Form Frozen Food Packers Association

Business Week. February 7: Packers last week formed a National Association of Frozen Food Packers. Its principal function will be to consult with the Army and the government on their requirements. Latest

figures indicate that 1941 was an excellent year for the industry, that around 385,000,000 lb. of frozen food was sold via 25,000 stores. That's something like 2¢ out of every food dollar. With a greater demand for food certain, and with difficulties arising in tin and transportation, 1942 should be better than 1941.

Experiments With Farm Journal, February: J. C. Ireland, Oklahoma Growth-Promoting A. and M. College, experimented with eleven different growth substances (including various chemicals, sorghum, alfalfa honey, clover honey, and so on). These sub-

stances were used on seeds and plants of various crops including cotton, soybeans, grain sorghum, alfalfa, beets, mung beans, cowpeas, oats, and

In the case of corn (250-foot rows) the substance was naphthalene acetamide. Corn which had seed treated and plants sprayed with this substance six times during tasseling and earing made 41.5 bushels per acre; sprayed but not seed treated, 35.25 bushels; seed treated but plants not sprayed, 31.5 bushels; untreated, 28.75 bushels. There's a difference of nearly 13 bushels between the high and the low:

Cotton treated with levulinic acid made 2,150 pounds of seed cotton (838 pounds of lint) per acre; untreated cotton, 1,400 pounds of seed cotton (581 pounds of lint). Soybeans treated with naphthalene acetic acid made 19.3 bushels per acre; untreated, 12.3 bushels. Alfalfa treated with levulinic acid made 5,160 pounds (green weight) per acre; untreated, 3,700. "Grain sorghum treated with sorghum made 3,801 pounds of seed per acre; untreated, 2,411. Stock beets trested with clover honey made 16.1 tons per acre; untreated, 5.6 tons. Rung beans untreated made 1,050 pounds of . hay per acre; two different growth substances raised the figure above

1,600 pounds.

L.O. Brackeen, in Country

/Gentleman, February: To help meet war-export and

Poultry Plan

increased home demand for eggs and poultry, Alabama

announces that its R.O.P. breeding program, launched

four years ago, is now showing excellent results. In 1939 the 1092 birds on test averaged 179.4 eggs. The post year the average production was 189.9 eggs per bird. When the project started in 1938, Alabama was qualifying its first R.O.F. hens--females meeting all the standard requirements and producing each year 200 or more eggs weighing 24 ounces or more per dozen. There are now over 225,000 U.S.-Alabama Approved pullorum-tested hens, over one-third of which are mated to R.O.F. males. The demand is for more R.O.P. birds than can be supplied by Alabama breeders.

Alfalfa Farm Journal, February: Farmers who feed ground alfalfa to breeding gilts may use 15%, even though they are feeding softean meal or tankage. In Wisconsin feeding trials; breeding gilts fed 15% alfalfa produced husky litters; those fed only 5% had too little milk to suckle their pigs, which became thin (and many died) before weaning time. the many distribution of the state of the st

Food Inspection Veterinarians

Editorial in Journal of American Veterinary Medical and Services of . Association, February: Veterinarians can aid in food inspection services. Examples are (1) need of an ever-increasing vigilance over panzootics which can

quickly reduce quantity by decreasing the number of farm animals, (2) treatment of the animal and the soil to step up nutritive values of food, and (3) removal of unfit food from the market by critical inspection.

Federal and State services have done a fine job of keeping down panzootics, thanks to persistence against considerable opposition, and the Federal meat-inspection service has been a blessing. Hundreds of farm animals, however, perish for lack of medical attention or planned sanitation and, certainly, many more hundreds from tolerating antiscientific practices, such as the unwise use of deadly biologic products on the farms and ranges either from lack of veterinarians or from opposition to the scientific methods they advocate.

Fire Defense of Woodlots, Pastures

Agricultural News Service (Ottlahoma A & M College): Workers at the college, writing a report of extensive experiments in Oklahoma Experiment Station Bulletin B-247, point out that despite serious damage to the soil inflicted

by burning of vegetation, the state probably will have hundreds of needless prairie fires this ceason. Part of this will be the result of a lighted cigarette butt carelessly tossed out of a speeding car, but more, unfortunately will be the direct result of fires started purposely by farmers to "improve" grazing land and destroy varmints and insect pests.

Entomologists point out that not all insects are injurious. Most of the insects found in leaves and grass and which are burned by the farmer's fire either do no harm or are actually beneficial. Burning drives away or

destroys natural enemies of insect pests.

British Soap Rationing

Copyright report from London to New York Herald Tribune, February 9: Soap is rationed in Great Britain; beginning today, the Ministry of Food announced last

night. The move was made to economize imported fats and oils, so more shipping space might be used to maintain rations of edible oils. The new soap rationing order means that the average English family must get along on about one-fifth less soap than it has been accustomed to. British laundries and other commercial users will receive supplies based on their previous six months consumption. Hotel residents must turn over their coupons to the hotels. Common household and toilet soaps, soap flakes, and soap powders now may be bought only with coupons. Shaving creams and soaps, scourers and abrasive soaps, liquid soaps, shampoo powders, and dental cleaners are exempt: Before the war, the average Britain used from 17 to 18 pounds of soap a year, as against 10 pounds used by Italians and Austrians, 15 by Germans and 18 to 21 by Belgians, French, and Dutch. Americans normally consume 22 pounds.

4 Major Textiles Set Consumption Record in 1941

New York Herald Tribune, February 6: Due to greatly increased war requirements, 1941 United States consumption of the four major textile fibers -cotton, wool, rayon, and silk -- broke all previous

records, according to the Rayon Organon, published by the Textile Economics Bureau, Inc., New York City. Total consumption of the four products was

6,470,400,000 pounds; an increase of 32 percent over the 1940 total of

4,896,100,000 pounds.

Consumption of raw cotton last year again led all other textile products, reaching an all-time record of 5,207,200,000 pounds, a 31 percent increase over the 1940 consumption of 3,961,700,000 pounds. Wool consumption in 1941 was 652,200,000 pounds, or 54 percent more than the 21-year high of 422,400,000 pounds in 1923. Rayon consumption last year totaled 586,000,000 pounds, another new high, surpassing the previous record year by 20 percent. Preliminary estimates gave the 1941 consumption of raw silk at 25,000,000 pounds, the smallest total since 1920, due to cessation of imports from Japan and reservation of stocks for United States military and naval use.

Green-Wrap

Tomatoes

1: The packing of green-wrap tomatoes in upstate

New York has been increasing in importance for ten

or a dozen years. New packing sheds are springing up here and there.

Southern packers follow the crop from Florida to Texas to Mississippi

and Tennessee and then on North. New York state is into the green
wrap business in the Hudson Valley, along the southern shores of Lake
Ontario, and along Erie. These shippers supply tomatoes to city re
packers who like the uniformity of a dependable pack so well that they
prefer green-wraps to vine ripened fruits that may be had on the open
markets.

A good many repacked tomatoes go to southern sections where this fruit is not available in mid-summer. This southward shipment of produce is showing increasing possibilities with the great industrial development taking place in our Southern States.

Dr. Mohler,

BAI Chief

Medical Association, February: When Dr. John R.

Mohler was chosen by Secretary Wickard to supervise
the publication of the Yearbook of the USDA for 1942, the National
Grange Monthly, voice of America's oldest farm society, seized the
occasion to review not only the biography of the man but also the main
achievements of the Bureau of Animal Industry accomplished under his
direction.

The selection of Chief Mohler for the task was logical, says the author, because "the next year book will feature animal diseases and pests together with their cure and eradication." The effect of animal diseases on human welfare is unfortunately not common knowledge. Notwithstanding that no large nation can dodge that issue and survive, disease in farm animals is unknown to the general population.

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

February 18, 1942

To Prevent Drafting of Necessary Farm Labor

Washington Post, February 18: Threats of a serious shortage of farm workers vital to the war effort brought cooperative action of the Selective Service System and the USDA yesterday to prevent drafting of essential farm labor. In view of in-

creasing farm labor shortage and urgent need for accelerated agricultural production in wartime, Selective Service Director Lewis B. Hershey announced a plan whereby the USDA County War Boards throughout the country would provide pertinent information to local draft boards on the agricultural and farm labor situation in individual localities.

While the County War Boards are not to handle individual cases of registration, they will provide facts "concerning the importance of certain products and scarcity of men qualified to produce them." General Hershey also said the USDA has agreed to inform him periodically on agricultural activities deemed essential to the war effort, and this information will be passed on to local draft boards.

Restrictions Bring Rubber Bill Veto

Washington Post, February 18: President Roosevelt yesterday vetoed the bill for planting of guayule and other rubber-bearing plants because it applied only to plantings in the United States. He

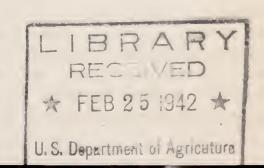
asked quick consideration of a similar bill that would permit plantings in the other American countries. Immediately after the veto message was read in the Senate, Senator Downey of California introduced a new bill embracing the President's ideas. He called attention to the fact that the Senate had passed the original bill in the form preferred by the President, but that the House amended it to limit its provisions to the United States.

Weather Retards Spring Farm Work in South

Weekly Weather and Crop Bulletin, February 18: In the South rainfall was frequent in most sections and heavy in some areas where spring work normally becomes active at this season. While good progress

was reported in most of the lower Great Plains and west Gulf area, except along the coast, and the South Atlantic States, fields were too wet from Tennessee and Arkansas southward. Some planting of early truck crops was accomplished and tobacco bed seeding was active in Atlantic sections.

Temperatures in the South were favorable, except in Florida growth was retarded by cold weather; only moderate shipments of hardy truck are being made from Texas. Citrus in Florida are still nearly dormant and



some potatoes are coming up. Early fruit buds are beginning to swell in most Southern States. In California low temperatures necessitated orchard heating and there was some freeze damage in southern coastal sections.

General snow fell over a large northwestern area, with fairly heavy amounts in higher elevations which improved the outlook for irrigation water. Snow cover was favorable for protecting winter grain crops. Rain is needed in much of Texas and in southern California. A levee break in the Sacramento Valley flooded some 50,000 acres of farm land, resulting in heavy crop loss.

Military Use of Animals

Maj.-Gen. John L. Herr, Chief of Cavalry, in Journal of American Veterinary Medical Association, February: All foreign ormies except the English use animals in great numbers. From the most reliable.

sources available, it appears the Russian army has more than 1,000,000 animals; the Japanese army has more than 375,000, and the German army includes, as a conservative estimate, more than 960,000 animals. American army has 50,000.

Breaking down these figures further, we find:

	For	For
A SA	Cavalry Use .	Praft and Pack
Russian Army	: 200,000	800,000
Japanese Army	. 50,000	325,000
German Army	. 50,000	910,000
American Army	. 25,000	12,000

Business Week, February 14: Food goals for 1942 Expanded Food involve large expansion of processing capacity on top Processing of that which has taken place as indicated by 1941 production. Most private dairies are financing their own expansion. Three large cooperatives are borrowing the money from the Ferm Credit Administration Bank for Cooperatives. The completed co-op fecilities will be purchased with lend-lease funds, the Bank for Cooperatives will be repaid and the government will hold title to the facilities and lease them to the co-ops for operation. The co-ops will have an option to buy the equipment after the close of the war.

Sheet Wear Margaret B. Hays and Ruth E. Rogers, BHE, in Experiments Journal of Home Economics, February, report tests of four kinds of sheets: Percele, fine count, two brands of medium-weight muslin, and one construction of heavy-weight muslin sheets were put into service in a hotel and used for approximately two years. When the hotel laundry closed at the end of that time, the sheets were reissued to homemakers. As wear progressed, each lot of sheets deteriorated progressively. The amount of service given by these five groups of sheets is closely related to their filling breaking strength.

The heavyweight sheets intermediate in price were in general heavier, stronger, and less chemically tendered than the other classes originally and during service. The percale and fine count sheets which were most expensive of those studied did not last so long as the heavyweight muslin but they had a finer, softer texture. Although the percale cost more than the fine count, it wore no longer than the latter. The medium-weight msulin

sheets which were lowest in price gave least service.

Colorado Bang's Ruling

Editorial in Western Farm Life, February 1: The Colorado State Board of Livestock Inspection Commissioners adopted the following ruling: "All dairy and breeding cattle 6 months of age or over brought into-

the state, except range or semi-range female cattle of the beef type and cattle for immediate slaughter from a Bang's disease-free accredited herd, shall be accompanied by a Bang's disease-test official certificate certifying that the cattle were subjected to a blood test for Bang's disease, with negative results, within 30 days prior to date of inspection. The blood test shall be made by a laboratory a proved by the livestock sanitary official of the state of origin. The Bang's diseaso-test certificate shall contain a list of the individual cattle, together with a satisfactory report and description of the test ... "

Puffed Science News Letter, February 14: Fuffed soybeans, analogous to puffed rice and other "emploded" cereals, Soybeans may become an acceptable breakfast dish, according to claims of a recent patent. The bitter beany flavor of soybeans has hitherto prevented this. Accordingly, the invention is mainly a method of removing this undesirable flavor. The hulls that remain as a by-product may also be turned to useful purposes, the inventor states.

Packaging Awards Established

National Provisioner, February 7: Establishment of a new annual packaging award for outstanding packaging achievement is announced by the American Management Association. Selection of packages for the calen-

dar year 1941 has already been completed. Presentation of the trophy of award will be made during the week of the Packaging Emposition, sponsored by the American Management Association New York, April 14 to 17.

N. D. Farm Council Reorganized

Editorial in Dakota-Farmer, February 7: The North Datota agricultural advisory council, established some time ago to help USDA agencies in developing sound farm programs and activities, was recently reorganized. It

now consists of 11 farmers, 10 state or USDA officials and two representatives of cooperating agencies.

Salvage

Editorial in Dahota-Farmer, February 7: Demand in of Straw the paper-making world for materials used in coarse papers, pasteboard and strawboard has caused contractors who supply paper mills to edge out farther and farther from their accustomed stamping grounds -- buying and baling straw. At one dump in Brown County 39,000 bales of straw are reported assembled. So far the price to producers is not large, but as the buyers do the baling and hauling, money received by producers for their excess supply of straw is all "velvet", and a strawnile baled and sold for a useful purpose is far better than a strawpile burned. If the present need for materials persists straw buyers may expand operations till farther throughout the Dakotas -- or mills may be located in the middle of the straw country, if adequate water supplies can be found for paper board malting.

Tennessee Shipper, New Strawberry Market Growers Journal, February 1: Tennessee Shipper, new variety of strawberry just introduced by the Tennessee Agricultural Experiment Station, is being recommended for commercial plantings. Selected

as a promising seedling in 1935, when it first fruited, the "Shipper" is the result of a cross between Missionary as the female parent and Blakemore as the male parent.

Research men say that in single-crate express shipments between Jackson and Knoxville, Tennessee, the "Shipper" received rough handling, yet the selection was outstanding for carrying quality. It is a heavy producer, and tests at the Tennessee station and other nearby stations indicate the variety is adapted to the section. Tested for frozen pack the "Tennessee Shipper" rated only medium in flavor. Its firm texture and tartness, however, may make it desirable for the preserve trade.

New Insect Vectors in Bubonic Plague A.M.A. Journal, February 7: Isolation of virulent bacilli from avian fleas has been reported by Theeler, Douglas and Evans of the Hooper Foundation, San Francisco. Thirty years ago Rucker suggested predatory

birds may spread bubonic plague. An opportunity to test the Rucker theory was afforded by a recent local outbreak of plague among the ground squirrels in central California. Two months after the peak a burrowing owl was captured 5 miles outside the infected area. This owl was the carrier of numerous "sticktight" fleas, an avian species, found abundantly on hawks, cwls, chickens and other domestic fowls and often present on rodents and coyotes. A mass inoculation of these avian fleas into a guinea pig proved that they were the carriers of virulent plague bacilli. This is appearently the first proof of avian transmission of plague infected insects.

Good Seed
Essential
to Crop Goals

Oliver C. Lee, Indiana Extension Service, in Hoosier Farmer, February: Better seed means fewer weeds. The folly of using impure seed was demonstrated on an Indiana farm a few years ago. This farmer pur-

chased "bargain seed." At that time red clover seed of good quality was selling for approximately \$14 per bushel. He paid \$6.80. Inspection of the 20-acre field which had been sown with this bargain seed revealed not only a poor stand of clover but an infestation of dodder as well which was so heavy the entire field had to be plowed up and the crop destroyed. A test made later of that same lot of seed found it to have a germination of 65 percent, a purity of 85 percent, with 11 percent weed seeds including 160 dodder seeds per pound.

1941 Shorthorn Registration Set Record Farm Journal, February: Shorthorn registrations for 1941 were up 17.4%, to hit the highest peak since 1930. Transfers were 21% ahead of 1940. Animals sold at 99 at etions totaled 4,186. They brought \$782,886.01,

which was 13% above 1940 prices. The American Shorthorn Breeders' Association had 975 new members in 1941.

DAILY DIGEST

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February 19, 1942

Curb Mosaic, Root Rot of Beans University of California Clip Sheet: Mosaic and root rot of beans, two serious chronic diseases, especially of Pink and small White varieties, are now being curbed successfully in the Salinas Valley as a result

of cooperation between growers and the California College of Agriculture.

Since bean mosaic is carried over from season to season in the seed,
steps were first taken to insure an adequate supply of disease-free seed
in 1940, and growers are now able to produce a continuous supply of such

Since development of root rot is influenced by soil temperatures at planting time, growers were then provided with soil thermometers which enabled them to plant according to soil temperatures rather than the calendar. This greatly reduced injury by root rot during the critical early stages of bean growth. When combined with planting of winter cover crops to be turned under before beans were planted, it has proved an efficient means of curbing root rot.

Agricultural History Series No. 3, by Arthur G.
History Series Peterson, BAE, reviews price administration, priorities, and conservation of supplies affecting agriculture in the United States during the first World War, which might help in planning similar programs during the present war. Edited in BAE, with the aid of a Department advisory committee, the series is issued at irregular intervals as material and results of research are available.

New Market for Western Cotton California Cultivator, February 7: Far western cotton from California, Arizona and New Mexico is being used this year for the first time in some quantity by southeastern mills. Irrigated cotton is proving

satisfactory for production of broadcloths and similar white goods, according to reports from many mills which have been using this lint. However, it is reported not as satisfactory in goods requiring dyeing, since the lack of oil in the fiber makes the fabric less susceptible. A claim has been made that there is an extra "kink" in irrigated cotton which increases fly and mill waste, but improvement in production methods is designed to eliminate this objection.

Sugar Ration Office for Emergency Management release (No. PM 2479): Dan A. West, director, OPA Consumer Division, urges householders to acquire the habit of sugar rationing before the rationing plan becomes effective.

LIBRARY

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★ FEB 25 1942 **

U.S. Department of Agriculture

Bovine Mastit_is Control O. W. Schalm, California College of Agriculture, in Journal of American Veterinary Medical Association, February: Included in the Food for Freedom campaign should be control of chronic mastitis. Data

collected at the University of California reveal that, while a few herds in the state are free from this infection, in the majority of them between 25 and 75 per cent of the cows are infected. Chronic mastitis is of considerable economic importance. It results in a decrease in both the quality and the quantity of the milk produced by the affected cows.

Much of the increase in milk production requested by the federal

government could be obtained by controlling mastitis.

To control and eventually eradicate mastitis from a herd, it is necessary to: (1) Test the herd at frequent intervals for evidence of infection; (2) Segregate the infected cows and milk them last; (3) Treat the infected animals by specific chemotherapy. (Treatment during the dry period is recommended.)

Amateur Plant Breeding Science News Letter, February 14: What interested hobbyists can do in colchicine-aided evolution of new kinds of plants has been well demonstrated at the University of Oklahoma. Under O. J. Eigsti, assistant

professor botany, over 300 amateur collaborators are scattered through 38 states. Dr. Eigsti's scientific collaborators include rich men, poor men, doctors, lawyers, merchant-chiefs, as well as housewives, nurses, schoolteachers, ministers, police-men, court clerks, contractors, stock-brokers, miners, editors, and a host of others. One of the most promising results turned in thus far is a new variety of soybean, twice as big and heavy as its parent strain.

Dr. Eigsti developed the idea in his laboratory. He announced his willingness to supply a small quantity of colchicine to any person seriously interested in experimenting with plant breeding. At first he intended to limit the group to 100. Colchicine is a yellow powder, an active poison, so that caution is necessary in handling it.

Dr. Eigsti can supply detailed information on where to obtain colchicine, how to dilute it, time and methods of treatment and recording of results. Experimenters must be prepared to carry on patiently for many months, and preferably for several successive seasons, scheduling regular hours every week to be devoted to the work.

Wheel Shields

Market Growers Journal, February 1: Of partice
for Spray Rigs

ular value to tomato growers who have to spray or dust
their fields is a report of R. S. Samson and John D.

Hartman of Purdue University, in which they show that by the proper use
of well-designed wheel shields, growers can prevent considerable damage
to the tomato foliage by the wheels, and yet still give the crop the
necessary dusts or sprays. These men conducted their experiments in a
field of tomatoes in which the rows were only 3-1/2 feet apart, a distance
often considered rather close where much dusting or spraying with heavy
machinery is done.

Says Wickard Grasps Food Problems Food Industries, February: Secretary of Agrianculture Wickard is apprehensive over the ability of food processors to preserve all the foodstuffs to be produced in 1942. Pointing out that a 28 percent

increase in number of hogs will be marketed this fell as compared to the fall of 1941, he is fearful lest meat pockers cannot meet the needs of the situation. It is not enough to kill and dress the animals; something must be done to preserve the meat for an indefinite period. It will be much easier, he says, to grow the food than to preserve it. His fears are not confined to hogs but extend to every perishable food. Of all official Washington, he alone has exhibited any grasp of the magnitude of the food preservation problems ahead. Old timers say he is turning the Department of Agriculture upside down in his effort to stimulate quick action.

Packaging of Frozen Foods in Wartine H. C. Diehl, BACE, in article in proceedings of convention of Association of Refrigerated Warehouses: With limitations placed on supplies of metals and other materials, packaging of frozen foods has become an

important factor in retention of quality and nutritional value. The type of wrapping material and efficiency of scaling decide the relative keeping properties in freezing storage. Only the best packaging and wrapping materials should be used. Excessive dehydration, with loss of edibility, can be prevented with coreful packaging. Care in selection of packaging materials may permit long storage periods in freezing storage without appreciable loss in appearance, edibility, or food value.

British Blackout Signs Arrive in United States

New York Journal of Commerce, February 17:
"Blackout signs" used during London's blitzkrieg
attacks show how advertising may be adented. A company in New York City has requested a ruling on the

display of such signs during blackouts. The signs, approved by British authorities, are visible even in total darkness from the ground, but not from the air. Luminous ink applied to posters, through a process developed by an English sign painter, stores up light during daytime exposure and glows brightly during complete darkness. Pedestrians in London have found the blackout signs helpful as landmarks or guideposts. Signs from the first shipment are being sent to San Francisco, Los Angeles, Seattle, and other Pacific Coast cities.

Electric Pis Brooder

M. Glen Kirkpatrick, in Farm Journal, February: Electric pig brooder, where artificial heat is needed, has been used successfully in California since 1935.

The experiment station there says losses of spring pigs in the first ten days have been only 13% with an electric broader, 29% without. An electric broader is easily made. The hover is a triangular frame set in the corner on the floor. The front is open to let pigs under, but sows are kept out. Boards across the front keep sow or pigs from getting on top of the hover or throwing litter on it. Heat is supplied by a 150-watt bulb, with 15-inch reflector, set over a round hole in the hover. A piece of hardware cloth is put over the hole. Five dollars will build a broader.

Rural Mannower and Production Goals in War Glen T. Barton, in BAE Land Policy Review,
February: What part does rural manpower play in our
efforts to achieve war-production goals? A large
part of the farm labor problem can be successfully

met by cooperative action of the farmers themselves. Full use of the Farm Placement Service and other State and Federal agencies will further insure that available farm workers will be effectively used. Our total war production goals can be met. Sufficient manuswer can be "drafted," voluntarily, or literally if need be, to insure that labor will not be a bottleneck in the accomplishment of our over-all objectives.

The task for agriculture in the war years ahead is by no means easy. But produce, it can and must. Production goals must not be lowered because of a prospective shortage of labor. Rather, faith should be held that through cooperative efforts of the farmers themselves, and assistance of Federal and State programs, the work will be done. Herein lies a major job for farmers working cooperatively through their agricultural planning committees.

USA Defense Housing Program

R. H. Schill, FSA, in Land Policy Review (BAE) for February: The major part of FSA's war housing program consists of providing temporary facilities. These are of three types—trailers, dormitories, and demount—

able houses.

Trailer cities have sprung up from Maine to California. When permanent houses are built, trailers are moved to another locality where there is a housing shortage. There are two types of trailers—standard and expansible. The former house four persons; expansibles accommodate six and comprise about 20 percent of each trailer camp.

The dormitory program is designed to provide temporary shelter units for defense workers without families. Each dormitory houses 62 persons and contains double and single rooms, a heating plant, toilet and bathing facilities, and a lounge room. Dormitories are operated with usual hotel services.

Portable houses are of two kinds—single and duplex. Both are prefabricated, with floors, sides, and roofs made in panels and bolted to gether. Built on wooden piers, the houses are made of plywood or wood giding with 3/4 inch of insulation board. Pitched roofs are covered with 90-pound mineral-surfaced roofing paper, which lasts 11 years.

Diet-Fatigue Experiments

National Provisioner, February 14: Dr. Ancel Keys, special consultant to the Secretary of War on foods, last week announced start of a two-year study

of diet in relation to fatigue. Investigations will be pursued in the new laboratory of physiological hygiene. University of Minnesota, of which Dr. Keys is director. Grant of a Swift & Company fellowship in nutrition to the university enables the study to be conducted with dietary and physiological research Dr. Keys has undertaken for the government. Soldiers will be used as experimental subjects in the university laboratory. Varying conditions of climate will be produced in control rooms in which men will do work, run on treadmills, and otherwise be tested as if laboring in cold or tropical countries, at sea level or high elevations.

AILY DIGEST

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> ★ MAR 18 1942 ★ U.S. Department of Agricature

Urge Farmers to Conserve Milk Cans

Dominion Department of agriculture, Ottawa: The supply of new milk and cream cans normally required each year by dairy farmers may not be available in 1912 because of the scarcity of steel and tin, both of which are now rigidly controlled, states the Dairy Products Board.

Canada, as well as many other countries, depended on Malaya for supplies of tin and since the war spread to the Pacific this source is cut off. It is urgent to bring into use milk and cream cans which may be out of circulation. Cans should be used only as containers for milk or cream. any other use is wastage and should be stopped. The board urges properly drying cans after washing and having worn or rusted cans retinned at once and that farmers who have cans in their possession which do not belong to them should return them to the owner.

Fire Defense of Woodlots, Pastures

Agricultural News Service (Oklahoma A. & M. College): Workers at the college, writing a report of extensive experiments in Oklahoma Experiment Station Bulletin B-247, point out that despite serious damage

to the soil inflicted by burning of vegetation, the state probably will have hundreds of needless prairie fires this season. Part of this will be the result of a lighted cigarette butt carelessly tossed out of a speeding car, but more, unfortunately, will be the direct result of fires started purposely by farmers to "improve" grazing land and destroy varmints and insect pests.

Entomologists point out that not all insects are injurious. Most of the insects found in leaves and grass and which are burned by the farmer's fire either do not harm or are actually beneficial. Burning drives away or destroys natural enemies of insect pests.

Canned Foods Office for Emergency Management release (Fo. P. 2484): Price Administrator Leon Henderson says important canned foods will be affected by the reduction in use of tin cans, and warns there is no justification for increased prices on canned foods.

7117

Order Honey Containers Early University of California Clip Sheet: Beekeepers have been warned by J. E. Eckert, California College of Agriculture, that threatening shortage of tin plate may limit the number of honey containers during the

coming season. Orders for containers should be put in as soon as requirements are known. It may be necessary, to use wholesale containers several times during the season, and honey may be stored in large tanks for longer periods. Provision may be made for liquefying honey to offset danger of granulation in storage tanks.

New York Farm

Machine Auction

the year to use every farm tool to capacity. The County Farm Bureau and County Agricultural Defense Committee of Seneca County, N. Y., helped farmers to meet this goal by organizing a used farm machinery auction. The fact that 300 people attended and paid \$1,100 for machines auctioned is ample proof that such auctions are needed. Farmers who own tools that they do not need can realize cash for them and put them in hands that will use them. In Seneca County three local auctioneers donated their services.

Research in Farm Equipment Editorial in Market Growers Journal, February 1: We have reports that farm equipment manufacturers are planning significant increases in research expenditures. Manufacturers soon will produce machines of such pre-

cision that seeding and planting will be almost entirely mechanized, done so exactly that thinning will be an obsolete operation. Cultivating machines will be perfected so that hand weeding will be a thing of the past. Precision harvesting machines will be used for nearly every crop. Electric eyes, already used for sorting of beans, will take the place of less exact human labor in the selection and grading of many vegetable crops.

Much of the success of this farm equipment research must depend, however, on progress made in vegetable crop breeding. If breeders can make our vegetable crops ripen uniformly, for instance, the farm equipment manufacturers will be there with precision machines that will harvest them.

Torch

Weeding

is the method used by vegetable grower George Graf,

Niagara County, New York. He experimented with the
torch nine years ago after working all day at picking tiny weeds out of
flats of melon seedlings in his greenhouse. He found that he could weed a
whole flat with the torch and scorch only the weeds by keeping the flame
down between the melon plants.

Burlap Ban

Office for Emergency Management release (No. WPB Modified

244): War Production Board February 13 issued an amendment to order M-47, effective immediately, making available additional supplies of burlap for bagging wool, peanut seed, and seed potatoes in order to move these crops.

WPB Tin Can Restrictions

National Provisioner, February 14: War Production Board says the recent order restricting use of tin cans for foods and other products is expected to result in saving approximately 40 percent of tin used by the canning industry over 1941. Concurrently, WPB granted high priority ratings to canners for remairs, maintenance and expansion, to enable canners to pack fruits and vegetables. The highest possible rating is granted for emer-

Farm-Home Talks, Among radio talks scheduled over the National Farm and Home Hour, week of February 23-28, are the Week Feb. 23-28 following: February 24--Agriculture Mobilizes, Lumber to Win the War; February 25 -- School and Community Gardens, by Morse Salisbury and Josephine Hemphill, USDA; February 26 -- The Farmer Pays His Income Tax, by Norman P. Cann, Acting Commissioner of Internal Revenue, and Poultry Feeding, by H. L. Shrader, USDA; February 27 -- On the mood for Freedom Front, by John Baker, USDA.

gency repairs to avert spoilage of fruits or vegetables.

Sheared California Cultivator, February 7: Sugar beet Beet Seed seed producing a high percentage of single seedlings has been obtained through use of a new seed shearing machine. Seed which has been run through this machine produces less than 60 percent as many seedlings as would the same number of normal seed balls. The machine shears 400 pounds of whole seed per hour by forcing it to break apart along natural cleavage planes between the seed cells. The sheared segments average a little more than one seed germ each.

The use of sheared seed in one planting at Davis eliminated the need for hand thinning. A final stand of 130 seedlings per 100 feet of row was obtained, all thinning being done with long-handled hoes. In this trial 85 percent of the inches containing beets had single seedlings.

Dairy News Better Farm Equipment and Methods (Jan.-Feb.): in Spanish Babson Bros. Co., manufacturers of milkers, cream separators, electric fences, water heaters and coolers, recently issued Surge News in a Spanish adition for distribution among South American dairymen. The News is an 8-page newspaper dealing principally with dairy problems, care of herds, sanitation, production records, experiment station research, pictorials and other material of interest to dairymen. Approximately 1,200,000 copies of the U.S. edition are distributed annually. Obtainable through the Service Department of this publication.

Shearling Office for Emergency Management release (No. WPB Conservation 240): War Production Board issued February 16 Conservation Order M-94, effectively immediately, reserving the entire shearling supply (first crop of wool from sheep) for military uses. However, WPB releases for civilian use those shearlings which do not meet military requirements.

Food Problem in France

Paris (France) correspondence in A.M.A. Journal, February 7: Food provided in the different departments of France is unequal, although there is a unii

Some not rationed foods are still to be found in some form ration card. departments. The supply, however, has diminished, and these districts do not have enough food for their own requirements. Providing food for cities is aggravated by transport difficulties due to shortage of coal and gasoline. People living in the open country are better provided for than are people in cities, just as it was in the last war. The government of Vichy is trying to organize distribution of food by means of special commissions and is endeavoring to accumulate stocks. Price regulation for all products has been adopted.

Food Industry and Defense

Roy M. Cohen, in Butchers' Advocate, February 11: The food industry from a processing and distributive standpoint, is vitally concerned with the entire food picture. Retailers may not realize that Government purchase of certain cuts of pork or beef and certain items in poultry tend to change the mar -keting structure for these products. Consumers of America should be informed by retailer, or through Governmental agencies, the items they can purchase from week to week that are most available for consumer use. This, in the last war, was one of the most important functions of the governmental agency charged with this work.

Soap Buying

Consumers' Guide, February 15: When you buy soap, Suggestions use general buying rules. Compare prices per pound or ounce, and if there is no net weight statement on the

/ label, weigh the soap. However, a hardmilled soap may contain about 30 percent more soap, ounce for ounce, than floating soaps:

Soap buying has a few special rules. Instead of scouring powder, try whiting, which is cheaper and does scouring jobs safely and efficiently. Once you have bought soap in bars, take it home, remove the wrappers and let it dry out before you use it. It will keep better and last longer. Now more than ever no-soap should be wasted. Do not leave soap in water after you have the suds you want. When you bathe or wash do not let the soap lie in the water. When you are using a chipped soap add a small amount of chips at a time until you get the suds you want, don't just dump chips into the tub. Do not let tiny pieces of soap go to waste. Drop them in a glass or a jar until you have enough to make into soap jelly. Then take the pieces, boil them in water until they jell on cooling. Soap jelly made from laundry soap can be used for dishes, for laundry, and for other household purposes. Save toilet soap ends separately and use the jelly for shampoos.

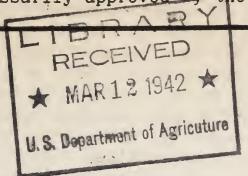
Ban Brass Eyelets for Shoes

Hide and Leather and Shoes, January 13: War Production Board, in recent order banning the use of brass eyelets for shoes, said: "Enough brass to make a million artillary shell cases a year will be saved

by using substitutes. Manufacturers have agreed they can use japanned metal instead of brass with no loss in wear."

AILY DIGEST

repared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.



February 23, 1942

Farmers Protect Themselves by Moving Scrap

The USDA, in a letter to field personnel and agricultural leaders: We cannot win the war without steel. The War Production Board is bearing down on hoarding of scrap metal by junk dealers and auto grave-

yards. War Boards have been asked to canvass auto graveyards. If steel does not flow to dealers and mills, it must be diverted from other sources for military production. So farmers protect their supply of new farm machinery by moving scrap off farms. If scrap is hoarded, WPB will requisition it. However, dealers must have some scrap on hand for processing, and at times hold some in storage because mills have not the space. OPA price ceilings on scrap are maximum, not minimum, prices. The price to farmers will vary widely, according to cost of getting scrap from farmer to dealer, preparation charge in junk yard, and transportation cost from dealer to steel mill.

Canada Restricts Use of Tin for Canned Goods

Ottawa report to New York Journal of Commerce. February 20: To conserve the tin supply, only food products considered essential for welfare of consumers will henceforth be preserved in tins, J. G. Taggart,

Food Administrator, Wartime Prices and Trade Board, has announced. In a normal year, Canada produces between 15 and 16 million tins of canned goods: Certain products such as corn on the cob and pork and beans will be eliminated from the long list of products now preserved in tins. Biscuits, dog food, and many other commodities will be packed in other types of containers. Mr. Taggart emphasized need for increased farm production and said failure to supply Britain with sufficient food would equal a major military catastrophe.

Poultry Equipment

Poultry Tribune, February: A recent release from the Department of Commerce says the value of manufactured poultry-farm equipment in 1940 totaled \$8,125,110, while barn and barnyard equipment totaled \$7,398,318. Not many people realize the

extent of the poultry-equipment manufacturing industry.

Spice Supply

Office for Emergency Management release (No. W 25): OPA Consumer Division says that although certain spices such as pepper and mustard are now on hand in ample quantities, housewives are urged to consider ways and means of conserving their present supplies.

Censorship of Scientific Publications

Science Service release, February 12: What amounts to a voluntary censorship of all scientific publications is announced by the National Academy of Sciences and the National Research Council in a communication to

Science. Shortly after the fall of France an advisory committee on scientific publications headed by Dr. Luther P. Eisenhart of Princeton was formed. Investigators and editors who had questions as to whether a scientific paper might inadvertently aid our present enemies were invited to appeal to this committee for a decision. This procedure, now made public, results in postponement of publication of information of possible military significance, but it is planned to allow publication of such material after the war.

Repair

Better Farm Equipment and Methods (Jan. - Feb.): To help farmers make the best use of their mid-winter Program repair time, a corps of about 100 repairmen - vocational agriculture teachers - recently finished a three-day short course in machinery maintenance and repair at the Illinois College of Agriculture. These teachers, together with engineers of the agricultural engineering department, farm advisers, and county defense boards, are holding machinery maintenance and repair schools throughout the state. Farmers are being encouraged to list the repairs needed on their equipment on the machinery repair check list card prepared by agricultural engineering department and to order repairs immediately from local dealers.

Maine Potato Varieties

American Agriculturist, February 14, reports experience of Maine potato growers with potato varieties. In spite of the fact that Green Mountains are suspectible to disease, there are more acres of them grown in Aroostock County than of any other variety. The popularity of Katahdins is increasing in Maine. Farmers are not 100% satisfied with the variety, but it seems the safest

all-around variety yet introduced. Most market men agree that the quality of Chippewas is not "tops". However, it is a good yielder. Erlaine yields well, but has undesirable characteristics. Houma is getting a lot of interest Some growers report it as the best of the newer varieties. Sebago is resistant to late blight, but is susceptible to leaf roll and matures late. Maine grovers consider Cobblers the best early potatoes. Warba is reported as giving low yields.

Scholarship for Vegetable Research

Market Growers Journal, February 1: The Vegetable Growers Association of America has established a scholarship of \$500 for encouragement of research on vegetable problems. The basis on which the award is to be made

is excellent, depending first upon the candidate's ability to plan a program of graduate research, then upon scholarship, personal characteristics, practical experience and extra-curricular activity. This represents a good balance of factors. The award is large enough to make the difference between a research career or none for some good student. The award is open to students from any college and the choice of the university for graduate work is wide open.

Vocational Forestry Training California Cultivator, February 7: High school graduates are wanted by the U.S. Forest Service for vocational forestry training and for defense jobs in the woods, according to an announcement by Regional

Forester S. B. Show. The Mt. Shasta Vocational Forestry school is opening a training course for qualified high school graduates with interest in forestry and lumbering. The summer term will be spent by qualified students as forest guards in actual fire protection in the state. The school was established at Mt. Shasta City so youths may earn their living expenses while studying forestry and related vocations while attending school under supervision of NYA and Forest Service officers.

New Poultry Rations Meet War Shortage University of California Clip Sheet: Sunlight and soybeans are suggested by T. H. Jukes, California College of Agriculture, to poultrymen searching for substitutes to replace fish oils and meal in poultry

rations. Dr. Jukes, assistant professor of poultry husbandry, points out that shortage of fish oils with vitamin D in 1941 probably will continue.

Exposure to direct sun light for half an hour each day, will supply much of the vitamin D requirement of all classes of poultry. Turkeys on the range, with the exception of breeding stock, may obtain all their vitamin D from sunlight. Another source is a new irradiated animal-sterol now used in many poultry mashes. Soybean meal will play an increasingly important part in poultry feeding, particularly in view of expected fish meal shortage. The feeding value of soybean meal is now increased by manufacturers through controlled and mild heating.

Australian, New Zealand Cheese for Britain

Dominion Department of Agriculture, Ottawa: W. C. Cameron, Associate Chief, Dairy Products, Grading and Inspection Services, said recently New Zealand, which ordinarily produces approximately 200 million pounds

of cheese annually, had undertaken to supply Great Britain with 35%.5 million pounds during the 1941-42 season. The greatest quantity of cheese ever imported into Great. Britain from all countries during any one year was 345 million pounds. Australia is not a large producer of cheese, yet that country has agreed to reduce the shipments of butter to Great Britain by more than 40 percent and to double the export of cheese.

Australia has built large refrigeration warehouses capable of holding upwards of 179,000,000 pounds of butter, awaiting the time when navigation will permit placing these stores on any market of the world. Both Australia and New Zealand are also experimenting with various types of dried and canned butter in the hope of developing new outlets for these products. Quality in post-war markets is their aim.

Restrict Highway Materials Office for Emergency Management release (No. WPB 216): War Production Board, in an interpretation to Preference Rating Order, P-100, issued February 13, has ruled that critical materials such as metals, bur-

lap, and rubber must not be used for highway construction and repair if other materials are available.

Hog Bristle
Supplies

Business Week, February 14: The War Production Board moved last week to conserve existing supplies of pig's and hog's bristles for the use of the Army

and Navy. Beginning Feb. 7, makers of brushes for civilian use were required to dilute their hog bristles with 45% of some other bristle mixture - horsehair, nylon, sisal, ixtle, and badger hair. Hog bristles in modern war are important enough to be a problem. They go into the paint brushes used by the Army, the Navy, and war industries. They also go into various specialized industrial brushes. The wool industry uses the bristles for combing yarn.

Virtually the entire United States bristle supply comes from China - 5,077,983 lb. of the total 5,639,561 lb. imported in 1940, for example. Only two other countries normally furnish us any appreciable quantity - Japan (222,837 lb. in 1940) and Siberia (190,678 lb.). Domestic bristle production is nil. This restricted supply is explained by these facts: (1) not all hog varieties produce good bristles; (2) it takes a mature boar to produce bristles of adequate length and quality, an animal four to five years old; (3) cleaning, sorting, dressing, and packing are economic only where cheap hand-labor is plentiful.

Turkeys Are

Plentiful

quite a few good turkeys left from the 1941 crop of 33,000,000 gobblers. Growers have kept many of their best birds as breeders. The Department of Agriculture advises that the larger the turkey, the greater the proportion of cooked meat to dressed weight. For example, the cooked meat of a 13-pound turkey averages 28 percent of dressed weight, but the cooked meat of a 25 to 30 pound turkey averages 34 percent of dressed weight.

Scientific On February 17 the Daily Digest used an abstract Publications of an article in the American Journal of Sociology (January) on scientific publications which said in part: "While the publications of scientists approach in numbers the publications of professional writers, many of the articles of the former might well remain unpublished. Excessive writing on the part of scientists results in inferior articles which are poorly written and which make no significant contribution to science. Microfilming has been suggested as a method of condensing the bulk of scientific publication, but more than this is necessary. Scientists must learn to communicate only that which is essential."

The Digest has received a number of requests for the article. For those who wish to read the complete article — and are unable to get hold of the January issue of the Journal of Sociology — we have a few copies which we will mail out as long as they last.

Says Fruits

University of California Clip Sheet: The
Supplement

California Nutrition Committee suggests fresh, dried
and canned fruits as sources of sweets. Dried fruits,
such as raisins, figs, and prunes, come in handy around
the kitchen. Cooked raisins furnish their own sugar in pies, cereals, and
other foods, and prunes are better when cooked without sugar.

DAILY DIGEST

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

February 24, 1942

Reused Tires for Use in Agriculture The USDA, in a letter to field personnel and agricultural leaders, says: Agriculture is well covered in the order rationing sales of retreaded tires. The order sets up two lists of eligibles, A and B.

Those on list A will have needs filled first; list B certificates will be issued only during the last few days of each month if retreads are left over.

Farm uses on list A are: 1) Vehicle with capacity of 10 or more passengers operated exclusively for transportation of employees to and from... a farm...except when public transportation facilities are readily available; 2) Truck operated exclusively for transportation of ...farm products...use;

3) Farm tractor or farm implement other than automobiles or trucks, for operation of which rubber tires or tubes are essential.

Farm uses on list B are: 1) Passenger cars used principally for transportation of executives, engineers, technicians, and workers to and from, or within...agricultural establishments; 2) Passenger cars used principally for transportation of produce and supplies to and from the farm if applicant operating farm does not own a truck or other practicable means of transportation.

U.S.D.A. field personnel are covered under list B for passenger cars used principally for transportation on official business of Federal, State, or local Government employees engaged in performance of Government functions essential to public health, safety, or war effort.

Science Service

A leaflet issued by Science Service says: Through
the endowment by the late E.W. Scripps, Science Service
has been assured of such basic financial support as to
insure its independence and permanence. Science Service was organized in
1921 as a non-profit-making corporation. Science Service is under the
control of a board of trustees composed of nine scientists and six journalists. The leading national organizations of all the sciences, the National
Academy of Sciences, the National Research Council, and the American Association for the Advancement of Science, appoint three trustees each.

N.J. 4-H Club Poultry Tribune, February: J. C. Taylor, N.J. Extension poultry specialist, says eggs from New Jersey 4-H Club poultry raisers are now identified in the retail markets by specially designed cartons in green and white -- the club colors -- carrying the 4-H insignia and their names.

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★ MAR 1 2 1942 ★

U.S. Bepartment of Agricuture

Mobile Labor Camps

New Jersey Farm and Garden, February: At least a portion of New Jersey's farm labor problem may be solved this year by modernized, mechanized, mobile migratory labor camps which will move up and down the eastern sea-

board for the first time this year. Eighteen fleets of these cities on wheels will accommodate migratory workers as they follow the crops. J. H. Wood, regional director, FSA says the FSA hopes to minimize crop losses through labor shortage and save as much as possible of the "Food for Freedom". The only present camps east of the Mississippi are eight in Florida. These are permanent and not movable.

Citrus Puln

D. E. Timmons, Florida Extension Service, in Florida for Marmalade Grower, February: This season Florida will for the first time market citrus pulp in quantity as a base for marma-

lade. The fruit to be used in making marmalade is bought and furnished by the government, the contract with the canner being to process the material. This process consists of heating the fruit and peeling it. The peel is inspected and graded cut into very thin slices. The fruit itself is boiled, then screened to remove the core and seeds. The pulp thus obtained is remixed with the sliced peel, brought up to standard volume by the addition of water, and put into barrels with preservatives that are later entirely removed before converting into marmalade.

Eastern Canada Dominion Department of Agriculture, Ottawa: To to Share \$1,000,000 encourage farmers in the five provinces of eastern for Fertilizers Canada to increase the yields of pastures; clover, alfalfa, and grass meadows; field corn; spring wheat, oats, barley, spring mixed grains for grain production; mangels and turnips for feeding live stock, an Order in Council has just been passed providing for \$1.000.000 to be spent by the Agricultural Supplies Board by July 1, 1942, to encourage the wider use of chemical fertilizers for the production of the crops mentioned.

Greater production of pastures, hay, ensilage, grain and root crops in eastern Canada is necessary if the demand from Britain for more Canadian dairy products, poultry and live stock products is to be met and at the same time supply the domestic requirements for these products. Payments to farmers are to be based on 40 cents per unit of nitrogen and 20 cents per unit each of phosphoric acid and potash in a ton of fertilizer.

FFA Corn Project Profitable

Better Farm Equipment and Methods (Jan.-Feb.): The Mount Morris, Ill., Future Farmers, where ii. R. Funk is vocational agriculture instructor, have realized a substantial profit as a result of their corn project

completed last fall. A farmer needed someone to take care of 17 acres of corn land. The soils and crops class outlined the cropping activities for the project, while the farm management class estimated expenses and calculated probable returns. All labor was paid to F.F.A. boys for doing work except for the harvesting of the crop. After all the bills were paid the chapter increased their funds by well over \$200.

"Agricultural Conservation and Adjustment"

Secretary's memorandum No. 960 and Supplement 2 of said memorandum are amended by striking out the words "Agricultural Adjustment and Conservation" and "Agricultural Adjustment Conservation" wherever they appear

by inserting the words "Acricultural Conservation and Adjustment."

Salt Treatment Proves Value on "Post Farm"

Oregon State College News Service: The value of heartwood for posts, and continued effectiveness of the "salt treatment" on Douglas fir are emphasized in latest tests made on the college post farm. The 1911 progress

report on the emeriment has just been issued as engineering emeriment

the transfer of the second of the second

station bulletin No. 90.

In the 15 years that the post farm has been maintained, 1,442 posts have been set. Each year every post is tested by a 50-pound pull at two feet above the ground. This year 28 of the posts failed, all but one of which had been untreated. Regardless of species, heartwood has proved far more durable than sarwood, points out T. J. Starker, in charge of the experiment.

Even round Douglas fir posts composed mostly of sapyood have been given outstanding durability by the salt treatment, however. Of 75 of these posts set in 1928 and treated by inserting certain dry chemicals in a hole, near the ground line, not one has failed to date. Similar posts untreated had a life of only seven years or less.

Animal Power

Dinshore, of the Horse and Hule Association of America states that 12 million of the 10 million horses and mules can be but to work in horness or under saddle this spring.

He says that, if wisely handled, they can do as much work as 18 million. originally did in beace time, brovided the farm work is spread over more weeks and more hours per day and owners "so feed and train the work animals as to put them in hard, fit condition before soring work opens up, and keep them so throughout the work season."

Horses and mules do not require rubber and they require but little iron and steel -- only 48 pounds in a complete breeching harness for two work animals. Sixty-five pairs of horses and mules can be harnessed with the use of no more iron and steel than is in one average tractor.

Mutton in Butchers' Advocate, January 14: In this country, the Midwest mutton has always been a stepchild; in England it is a popular dish, so popular that becon is made from mutton under the name of "macon." Some meat dealers, however, in a mid-western city, have recently had considerable success in moving mutton by advertising it as a "Leg 'O Mutton at 15c a 1b., a real buy." Many housewives, wondering what to get for the evening meal, bought mutton as a welcome change.

Farm Labor The USDA, in a letter to field personnel and agri-Placements cultural leaders, said: The U.S. Employment Service is issuing detailed instructions to State directors on the expanded program to handle farm labor placements. Five hundred additional full-time offices will be created, and an undetermined number of temporary or mobile offices set up. Locations of new offices will be determined after conversations with State War Boards, U.S.D.A. labor subcommittees, and AMS State statisticians. The State Employment Service directors are asked to make a report by March 7.

Cheaper Cuts

Committee of the second

Butchers' Advocate, January 14: A survey by the More Popular Advocate shows a charp swing toward more purchases of the lower-priced meats, indicating that the American public, with its increased earning power and added knowledge of nutrition values, is turning toward the cheaper cuts as the first step in introducing more meat to the family menu. Made more and more conscious of the fact that meat is a high source of protein, which safeguards her family from illness

by building up resistance, the American housewife has quickly adapted her buying habits to this newly-established fact.

In the survey, conducted in metropolitan New York and several up-state cities, hamburger ranked first in popularity as an inexpensive meat. This poll, found beef for stew in second place, and lamb for stew in fourth place. Frankfurters found their way to third place, in all probability because of their short cooking time and popular appeal. Chuck of beef proved its popularity by winding up in fifth place, besides being mentioned frequently as the housewife's choice for chopped beef. Pot roasts close the list in sixth Place, showing the constant trend toward low cost roasts that may be served two or three days. Pork is noticeably absent from the list of inexpensive cuts. This is largely due to the extensive purchases being made by the Government in the pork field.

Asks Voluntary Control of Farm Machine Prices

Price Administrator Loon Henderson, in letter to all farm equipment and tractor dealers, in Implement & Tractor, February 14: The experience of the last war demonstrated the destructive results of extreme advances

in prices. Manufacturers and dealers found themselves with high costs of production and over-priced inventories as their markets declined after the War. Manufacturers of implements and tractors have been submitting their proposed 1942 prices to this office for review and have refrained from advancing prices to the extent of their increased factory costs. The benefits of their cooperation, of course, can be cancelled if dealers attempt to get the highest prices possible under conditions of high demand and insufficient supply.

It is essential that a dealer in farm implements and tractors cooperate with this office in avoiding inflation. Farm implements and tractors are an important part of the expense of producing food, and increases in the cost of living cause widespread advances in prices. The farm equipment industry in keeping its prices low thus can make a great contribution to our national war effort et given bilance green

Cobalt Deficiency Disease

From Michigan Quarterly Bulletin, in Hoard's Dairyman, February 10: Evidence has been obtained which indicates that the "Grand Traverse or Lake Shore Disease" of dairy cattle is essentially due to cobalt deficiency.

Biochemical investigations have demonstrated a very low concentration of. hemoglobin in the blood and no evidence of ketosis or phosphorus deficiency. Hemoglobin regeneration occurred slowly but the animals responded very quickly in appetite and vigor to cobalt supplementation. Preliminary chemical investigations have shown that the cobalt contont of hay grown on affected farms is much lower than hay grown on farms in unaffected areas.

DIGEST

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February 25, 1942

Tin Cans for Use in Homes Allotted

New York Journal of Commerce, February 24: Deliveries of tin cans for home canning use will not be affected by the recent curtailment order, the War Production Board announced yesterday, because the

Government hopes that an increase in home preserving will relieve pressure on commercial canners. Can manufacturers may sell home-canning type cans to hardware stores and other distributors for resale to household users and institutions, WPB said. It was estimated that not more than 50,000,000 cans would be needed for home and institutional purposes in 1942, and that this number would require only about 100 tons of tin.

Industrial Activity

Federal Reserve Board, February 21: Industrial activity rose further in January and the first half of February, reflecting continued sharp advances in output of military products. Retail trade was unusually active and prices,

particularly of unregulated commodities, advanced.

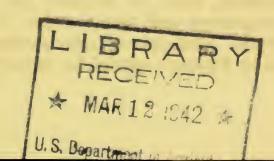
Volume of industrial production increased in January, although usually there is some decline at this season, and the board's adjusted index rose further to 170 percent of the 1935-39 average. Continued rapid increases in activity were reported in the machinery and armament industries and production of chemicals likewise rose sharply. Activity at cotton textile mills reached a new high level, following some decline in December. In the meat-packing industry, where activity had risen to record levels in December, there was a further advance in January and output of most other manufactured food products was maintained in large volume for this time of year.

Concentrated Foods Under Lend-Lease

Consumers! Guide, February 1, tells why Lend-Lease shipments include so many waterles foods: Eggs shipped in shells, for instance, must be shipped promptly and kept chilled until they are caten. Some may be cracked

or smashed on long voyages. Powdered eggs don't need to be kept cold. They don't need to be rushed to consumers, and they can wait longer than fresh ones to be served up for food.

War makes space important in another theater. When a parachute trooper walks out of an airplane in midair, he never knows where his next meal is coming from, or when. The U.S. ration includes three meals that give a total of 3,311 calories in food energy. The ration weighs less than 2 pounds. Parachute rations (Ration K) go to soldiers in the armored forces, too, where space is an important consideration.



Veterinarian Service Established North American Vererinarian, February: To aid the government in providing veterinarians, dentists and physicians for the armed forces and maintain adequate professional services to take care of the civilian population and

the industries, the A.V.M.A. Procurement and Assignment Service has been inaugurated. A directing board of five members was formed. Among members on the board is John R. Mohler, chief, U.S. Bureau of Animal Industry.

One of the primary objectives of the Service, as it applies to the veterinarian, is to maintain a complete register of veterinarians for the entire country. Information available would include age, physical condition, qualifications, and availability for military and civilian service. Questionnaires will be mailed to all veterinarians in the United States.

Fruit, Testing Cooperative

Philip M. Wagner, Baltimore Evening Sun, in Science, February 13: The New York State Fruit Testing Cooperative Association, unless it can expand its membership somewhat,

may have to cease its useful work. The cooperative was organized twenty years ago to serve as a bridge between breeders of new fruits and the testers of new fruits. Many varieties, apparently superior under the conditions where they are originated, prove to possess weaknesses when tested elsewhere. The New York Experiment Station conceived the notion of a cooperative association which would stand ready to test new varieties of fruit under a great variety of conditions, reporting back occasionally on the results of their tests. The resulting association has been self-supporting since its establishment, requiring no subsidy from any source whatsoever.

The cost of membership is nominal, and members buy the productions which they propose to test out at cost. But in order to continue self-supporting the cooperative must maintain the membership of at least 2,000 persons who are genuinely interested, on the one hand, in assisting the fruit breeders, and on the other hand in having access to the best new productions of the breeders for their own use. Persons interested should write to H. L. King, manager, in care of New York Experiment Station, Geneva.

Sugar Beet Growing in California

J. W. Hamilton, in California Cultivator, February 7: Assurance comes from George Wright, agriculturist for the Spreckels Sugar Company, that processors are prepared to operate their factories to capacity this year.

in an effort to meet government requirements. He predicts there will be increased plantings in the Sacramento Valley and in the Salinas section up to the capacity of the plants. Arrangements are also being made to stack beets in the yards as long as practical so that the processing season can be prolonged.

British Tomato Ruling Market Growers Journal, February 1: A new order relating to commercial greenhouses in Britain stipulates that all glasshouses used for producing crops for sale must be wholly devoted to tomatoes for at least six

months of the year, except they be planted to permanent crops. The latter, however, must be reduced to 25 percent pre-war plantings. Presumably carnations and roses grown in beds or benches are classed as permanent crops. The use of greenhouses, frames and cloches for the production of tulip flowers again is prohibited.

Rat Damage In Poultry Industry George W. Dyar, in Poultry Tribune, February:
Poultrymen pay the highest bill for the support of rats
of any farm group in the United States. More than 60
percent of the country's poultry, or 257,413,200 chickens,

are housed in rat infested buildings. The poultryman is misled by the seemingly small number of rats on his premises. Actually, he sees only

one in five of all the rats on his place at any one time.

Hollow walls of easily penetrated materials, such as composition boards, furnish fine shelter for rats and often allow the animals to become firmly entrenched in otherwise ratproof buildings. Ten to 15 rats per 100 laying hens, housed where rats are present, is the average on moderately infested poultry farms. Eighteen cents of each hen's yearly earnings goes to support these ruthless parasites. Added to the above costs of feeding these rats must go the loss of stolen eggs, ruined grain bags, weakened buildings, damaged insulation killed baby chicks and laying hens. Few poultrymen realize that cannibalism outbreaks are often traced directly to attacks by rats. Poisoning (well prebaited) followed by extensive trapping, to pick up those that refused the poison, coupled with shooting, spearing and gassing (auto exhaust), will rid you of your present infestation. The next step is to rat-proof.

Industrial Scrap Conservation Program Milk Plant Monthly, February: Bureau of Industrial Conservation reports that a comprehensive plan of industrial conservation designed to secure the active cooperation of industry in the economic use of raw materials

and the salvaging of scrap needed for America's war industries is now operating in Erie, Pa. Committees have worked out a program of objectives as follows: Wrecking of abandoned and obsolete machinery and equipment; utilization of all critical materials to the best advantage; minimization of waste and spoilage; reuse wherever possible, of blanks, cut downs, short ends, clippings, etc.; selective handling and segregation of scrap and overage at the source; avoidance of contamination; speeding the return of scrap and waste materials through existing channels to mills and refineries.

Tin for Canned Goods

Editorial in National Grocers Bulletin, February: Tin for canned foods will be reserved for packaging food items which require that type of packing for preservation. That means a number of items commonly found on grocers

shelves in tin will be offered in other containers. Less tin is to be used per can, wherever that can be accomplished. Mainly, however, tin supplies will be safeguarded by elimination or curtailment of packaging such items as dog food, beer, paint, tobacco, coffee, shortening, candy, pork and beans, whole or half chicken, hams, and the like. Can sizes, too, will be greatly simplified — and there is much talk of less than thirty sizes of cans for food.

Sugar Ration Printing

Office for Emergency Management release (No. MPB 246): The preparation of forms and booklets for the sugar rationing program was the G.P.O.'s biggest single 00.000.000 forms. cards. and booklets, using 12.000,000

job. More than 700,000,000 forms, cards, and booklets, using 12,000,000 pounds of paper, were printed.

Controllers still try to build their own electric fence controllers.

It's dangerous to fool around with this homemade electrical dynamite. It is unfortunate that plans are still being distributed for homemade electric fence controllers. These controllers are not 100 percent safe and not 100 percent effective. Stay on the safe side by using only a fencer which has approval of a recognized authority stamped on the name-

Trends in Butchers! Advocate, January 14: Probably the most Turkeys outstanding change in the marketing picture for poultry has been the increase in turkeys during the past five years. The scientific incubation, pen feeding, and the stopping of turkey mortality to a small degree, has made the production of turkeys a profitable operation for the producer.

plate of the fencer you buy.

The marketing of turkeys after the Thanksgiving and Christmas holidays in huge quantities was never thought about except in the past few years. As for example, three years ago on January 1, the poultry industry was confronted with the marketing of 100 million pounds of turkeys before the opening of the next season. This was accomplished through a nation-wide campaign for the wider distribution of turkeys on an all-year-round basis, and since then and in fact, during the past year, millions of pounds of turkeys have sold from week to week throughout the year.

Nation-Wide

Farm-Machine

Care Program

farm youths, an important result of which will be better

care of farm machinery to avoid unnecessary depreciation

during the war, is being carried on by the U. S. Office of Education under

a \$15,000,000 congressional grant. More than 125,000 youths in practically

every state are receiving training, and in many instances private business

firms are cooperating.

Arc and acetylene welding, metal forging, motor repair, woodworking and elementary electricity are being offered under the program. It was pointed out 75 percent of the classes were being given in rural areas, not only because of the greater need for mechanically trained men on the farm, but also because of the relatively few trade schools in non-urban sections. In addition to helping achieve greater efficiency in wartime food production, the trainees will have valuable mechanical experience to help the army in case they are called for service. Another important long range aim of the program is to prepare the farmers of temorrow for greater mechanization of agriculture.

New Machine

Business Week, February 14: Suddonly faced with
Sterilizes Soil the job of growing all the food possible instead of
worrying about marketing of surplus production, farmers
are speeding up development of labor-and-time-saving devices. For instance a machine is now being used in the Imperial Valley of California
to battle bugs, moles, weeds, and fungus diseases in the soil. Electrical
apparatus mounted on a tractor electrocutes insects and "sterilizes" weed
seed. Electrical equipment has an output up to 16,000 volts; 24 electrodes
spaced every 32 inches make electrical contact with the soil.

DAILY DIGEST

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture

Washington, D.C., February 26, 1942

Bulletin, February 25: Following the recent long period of abnormal warmth, the widespread, subnormal temperature with severe cold weather in much of the North and West, was unfavorable for seasonal operations on farms, and especially hard on livestock in western grazing areas. Heavy feeding was necessary and in more western sections where the winter has been cold, consumption has reduced feed supplies. Shrinkage of livestock is reported in many places, but losses have not been serious. It was especially unfavorable for shed lambing in northwestern sections, although no serious losses are indicated. In California frost was general with considerable orchard heating required; some citrus fruit were frozen in the Los Angeles area; there was some truck damage in the Imperial Valley.

In the Southern States from the lower Mississippi Valley eastward frequent rains kept the soil too wet to work in most areas and preparation for spring planting was inactive. In the extreme Southeast truck crops made slow growth because of cold, wet weather. However, in the Southern States low temperatures were beneficial in holding early fruit trees dormant, reducing the danger of premature blooming. Additional rains in the south Atlantic area have further improved the water situation, with some sections reporting streams at the highest stages in more than 6 months. In parts of the Southwest, including much of Texas and the southern portions of New Mexico and Arizona, precipitation since last fall has been scanty and moisture is needed. In most other areas the moisture is satisfactory.

BACK-GARDEN STOVES FOR THE BRITISH. London report to New York Times, February 25: To avoid communal feeding "surges" in the next emergency, the British Women's Voluntary Service is now superintending construction of cooking ovens in back gardens. Nothing in past air raids upset the rationing system so much as the sudden mass descent on communal feeding centers of people whose gas and electricity services had been temporarily interrupted by bombing. Food coupons were not presented to the regular retailer, stocks of perishable foods were spoiled and wasted, and other stores had to be retransported after a few days or even a few hours.

In many areas local authorities are collecting dumps of bricks from bombed houses, fire-bars from wrecked stoves, and so on, that women under the guidance of the borough engineer have learned to make into quite efficient back-garden cookers. Some women working with home-mixed cement have become first-rate bricklayers.



CONNECTICUT HERD HEALTH PROGRAM. American Agriculturist, February 14: In the August issue of the Connecticut Dairy Herd Improvement Association news letter, A. I. Mann, in charge of this work, reports on the number of cows removed from association herds during the testing year 1940. Sixteen testers reported that there were 2,124 cows removed from the herds during this period, 81.6 percent because of disease, low production, etc. The removal of so many animals from our dairy herds represents heavy economic losses. Herd management has for the most part been centered around breeding and feeding problems. In order that good results may be obtained in feeding dairy animals, it is essential that we have healthy animals to feed. A herd health program is being sponsored throughout the United States by the Health Committee of the American Dairy Science Association. This committee recommends that in carrying out and developing a herd health program five points be emphasized: feeding, management, housing, sanitation and disease control. The Connecticut Extension Service through the County Dairy Committees will emphasize herd health during the next few months.

PASTURE AND RANGE IMPROVEMENT: J. F. Combs, Jefferson County (Tex.) agricultural agent, in Coastal Cattleman, February: Pasture and range improvement, has been considered the major program for Jefferson County for the past several years. Records have been kept on 26 demonstration plots where Tennessee Valley Authority triple superphosphate has been used at the rate of from 100 to 200 pounds per acre. This fertilizer was applied in the fall of 1940, and some of the best clover pastures in the history of this section resulted during the winter and spring of this year. Some of these pastures where the fertilizer was applied have been developed over a period of years, fertilizer having been applied each year for the past four or five years. The average carrying capacity of these areas where records were kept ranged from one to three animal units per acre for the first four months of the year, with approximately one animal unit for the balance of the year.

ILL. TRAINS 100 IN FARM REPAIR WORK. Illinois Agricultural Association Record, February: A corps of approximately 100 repairmen - vocational agricultural teachers - has just finished a three-day short course in machinery repair and maintenance at the Illinois College of Agriculture. These teachers, together with members of the agricultural engineering department, farm advisers, and county defense boards, are holding schools throughout the state to help farmers make the best use of their mid-winter repair time. Nine vocational agricultural teachers, chosen because of their previous experience and training in farm machanics, acted as instructors.

More Poultry From Farms in Midnest. Breeder's Gazette, February: Midwestern farmers are discovering that they can produce meat breeds of chickens just as cheaply proportionately as the Pacific Coast and Hastern commercial poultrymen can produce eggs. A number of farmers have started raising a flock of meat chickens each summer, usually crosses, which are sold at four to five months of age. According to Paul Mandevile of the American Institute of Poultry Industries, the midwestern livestock farm is especially well adapted to profitable production of meat chickens. On most farms home-grown grains may be used, and there is plenty of room for properly developing such chickens to carry large frames and fine quality meat. In producing meat the farmer is also producing a product that requires much less expert management and time in growing and marketing than eggs.

FERTILITY FACTORS IN POULTRY. Poultry Tribune, February: An analysis of the incubation records of more than 1,200 hens was made by W. F. Lomoreux, Cornell University, to determine the relationship between the proportion of eggs laid which are infertile and the rate of egg production. The hens which laid 13 to 22 eggs during a 6-week period produced a larger proportion of infertile eggs during that time than birds which laid at a more rapid rate.

The eggs laid during weeks when one to seven eggs were laid showed, respectively, a degree of infertility which was inversely proportional to the number of eggs laid per week. The proportion of infertile eggs was significantly higher among those which were laid in clutches of one to three eggs than in those laid in clutches of more than three.

CONSERVE PAPER CAREFULLY. Editorial in National Grocers Bulletin, February: Grocery stores are urged by the Government to conserve paper. Following are some suggestions: 1.) Avoid rewrapping of already packaged merchandise; 2.) don't wrap merchandise unless it is absolutely necessary; 3.) eliminate ready-cut wrapping paper and use roll paper as sparsely as possible; 4.) use correct size bags for all merchandise; 5.) shopping bags and baskets or other handy containers should be used by consumers; 6.) when cardboard boxes are used for home delivery driver should return carton for reuse by the store; 7.) many items can be sold in bulk to avoid packaging, such as eggs, butter, etc. 3.) retailers should salvage all kinds of paper and cardboard - including display signs, banners, pennants and streamers, as well as wrappings, bags and boxes.

NEW MACHINE TO SAVE 17,000 TONS OF RUBBER. Implement & Tractor, February 14: A machine capable of saving 34,000,000 pounds of rubber annually -- more than could be produced in a year by 9,000,000 Far Eastern rubber trees -- is being made available to rubber reclaiming companies in this country, John L. Collyer, president of the B. F. Goodrich Co:, annunced recently. The machine was developed in the rubber firm's laboratories in anticipation of the emergency demands for rubber reclaimed from old tires which is better for many products than even the natural product.

The basic function of the machine is to eliminate the necessity for destroying in the reclaining process the rubber surrounding the wire beads in used tire rims. These wires are imbedded in the tire rim so firmly that heretofore reclaimers have been unable to get them out, and as a result, have merely cut off the rim. Thus was wasted rubber amounting to about 17,000 tons a year.

TUNG OIL PREFERENCE. Office for Emergency Management release (No. WPB 249): The Division of Industry Operations says General Preference Order M-57, which restricts deliveries of tung oil to orders with a rating of A-2 or higher, has been extended to April 15, 1942.

MUCH TIN PICOVIRABLE. Food Industries, February: One of the cocouraging signs of the times is the possibility of recovering tin and steel from used tin cans. Preliminary studies suggest the recovery of 10,000 tons per year of secondary tin from this source. As an economic proposition, however, it cannot stand on its own feet. A government subsidy will be required. More can be expected on this subject in future months. MAINE OFFIRS NEW POTATO TABLE GRADES. Market Growers Journal, February 1: A new development in Maine's potato marketing program has just been announced by Carl R. Smith, commissioner of the Maine Department of Agriculture. Maine now is offering table stock in three grades. In addition to the regular U.S. No. 1 two-inch minimum size A grade, the department is offering two new packs of U.S. Extra No. 1 grade to be shipped under state-owned trade-mark brands. "Super Spuds," is the name given the first of these. "Chef's Special" is the brand name of a special pack for hotel, restaurant, commissary and institution trade. These two packs, will interfere in no way with previously-established grades.

American farmers sold about ten million dollars worth of native evergreens and berried plants for making wreaths and other Christmas decorations, this past holiday season. S. B. Detwiler, chief hillculturist of SCS reports the Christmas greens industry has reached large proportions in at least half the states. More than 1,500,000 yards of single and double laurel rope are produced annually along the eastern seaboard. Montana, Mashington, and Oregon produce about half the 10 million Christmas trees sold in America annually. Bulk of the decorative plants —holly, laurel, Galax, creeping pine —comes from the Middle Atlantic and Southern states.

Many decorative plants are effective also in controlling erosion. SCS and BPI are testing plants to find superior species that bring good prices during the holiday season and are useful in conserving the soil. Holly ranks first among these plants.

MAY DEVELOP ABORTION-PRISTANT HOGS. Colifornia Cultivator, February 7: Possibility of developing strains of breeding stock possessing natural immunity to swine abortion, is suggested with the recent University of California discovery that some hogs possess a natural immunity to this disease. H. S. Cameron, E. H. Hughes and P. W. Gregory, veterinary science and animal husbandry divisions, who conducted tests with 23 litters, totaling 12% pigs, from sows known to be resistant to abortion, say the results are "conclusive evidence that the resistance can be transmitted to the offspring." Less than I percent were susceptible to the disease, more than 75 percent resistant, and in 22 percent the resistance could not be determined by the agglutination test.

Grade Poland-China and Duroc-Jersey stock has been tested up to the present. Breeding work is now under way with this stock at the university with the ultimate objective of establishing resistant strains in farm herds so that their immunity can be tested under field conditions.

canadian while Price Raised. Business Week, February 14: A delegation of 400 from the Prairie Provinces went to Ottowa recently with a request that wheat prices be boosted, and the cabinet agreed to raise the government-guaranteed price of the grain from the present 70c a bu. to 90c or \$1.00. Another farm protest came through canners who are raising objections to the government's subsidies on imported fruit juices, particularly grapefruit juice. Canadians are increasing their production of tomatoes and apples and the canners want to push these two products at home though they are sure to have a market in Britain for any stocks they can spare. Recently the government has been paying a subsidy of \$2.50 a case on imported grapefruit juice, to bring it into the country under the price ceiling program.

DAILY DIGEST

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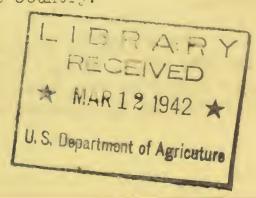
Washington, D.C., February 27, 1942

"SMOKER FIRES IN FORESTS. John J. Keetch, Appalachian Forest Experiment Station, in Conservation (Jan.-Feb.): "Smokers" are reported, on a 5-year average, to start one-fourth of the nation's forest fires. A station survey indicates that matches and cigarettes are effective on major fuels as follows, in decreasing order: for matches, (1) pure coniferous duff, (2) coniferous-hardwood mixture, (3) hardwood litter, and (4) rotten wood; for cigarettes, (1) rotten wood and (2) other fuels.

The tests indicate, that the ignition range of pipe heels, cigarettes and cigars is well below that of matches, and that, in general, the critical ignition range with matches can be used as a criterion of possible smoker fire origin. When fuel moisture is more than 15 percent, or wind velocity more than four miles per hour, regardless of fuel moisture, the fire investigator is justified in considering incendiarism since the ignition studies support the conclusion that carelessly tossed matches are rarely effective under these conditions.

CANADA RESTRICTS HARD FIBERS. Canadian Textile Journal, February 13: Regulations restricting the use and consumption of hemp and sisal and cordage made from these hard fibres have been issued by Deputy Controller of Supplies J. R. Nicholson. "Further importation of manila hemp into Canada is imperilled," presumably due to extension of hostilities to the Philippinos. While supplies of manilla hemp are practically cut off the sutuation on sisal is not as critical since supplies are obtained from several sources. New regulations specify that processing of manila fibre is limited to cordage used in commercial fishing, freight and passenger boats, marine towage and lighterage and drilling cables for gas and oil wells. Use of manila fibre and sisal, other than tow, in or for the manufacture of rugs, bedding and furniture, shipping ropes, tying trees for shipment is prohibited except under special licence.

NATIONAL CHEMICAL EXPOSITION. Hide and Leather and Shoes, February 12: Termed "the most important industrial exposition of the year on account of the war," plans are shaping for the second National Chemical Exposition sponsored by the Chicago Section of the American Chemical Society, to be held November 17-22 at the Stevens Hotel, Chicago. It is reported that more than 50 percent of the available exhibition space is already under contract with leading firms throughout the country.



CONSERVING SOIL. WATER WITH STUBBLE MULCH. H. H. Bennett, SCS Chief, in address in Agricultural Engineering, February: It now seems possible, if the stubble-mulch practice continues to spread and to produce desirable results, that the old type of turning plow (or cover-up plow) may pass out of general use in many localities. There would, of course, still be a place for this implement, as for building terraces and for pasture contour furrowing and contour listing. The stubble-mulch method for soil and water conservation is not suggested as a cure-all, but as a specially efficient tool of proved value for many localities, and of good promise for all localities subject to impoverishing soil erosion.

On many farms it is going to be necessary to use various measures for control of erosion and conservation of rainfall, such as installations of soil-conserving and water-control structures and practices, as well as changes in land use, in order to complete the job. And, in this connection, it is important to observe that it may not be practicable to complete the application of all measures at once; but the farm should be planned with that end in view and all needed measures, practices, and structures should be established coordinately and as quickly as practicable.

FROZEN FOODS IN 1942. Editorial in Ide and Refrigeration, February: Attention now being directed toward food supplies is creating an opportunity for bringing to public attention the advantages of frozen foods. A probable acute shortage of containers for canned foods and an increased demand for food for the Army and Navy, as well as the civilian population, has heightened the interest. It is possible frozen foods may be substituted to a considerable degree for older-forms of food preservation, and this may prove a vital factor in helping America win the war. It is essential that as much as possible of our home food supply be quick-frozen and that we make full use of all means of processing local food supplies for local consumption, not only to lessen the burden on the canning industry but to relieve our overburdened transportation system.

U. S. HOUSEWIFE WILL NOT HAVE TO USE "MAR BREAD." American Miller. February: The American housewife will have many problems in feeding her family during this war period but she won't have to use "war bread," states Wheat Flour Institute. There is an ample supply of wheat in storage to cover domestic needs for wheat. Since flour and bread will be available in quantity, these products will continue to be among the most economical to use. Thrifty housewives will find new ways to make bread and foods made with bread a more important part of their daily diets. In so doing they will reduce the consumption of other food products greatly needed in the war-torn nations of our allies. Millers and bakers have co-operated with nutritionists and governmental authorities in developing enriched flour and enriched white bread which carry a greater amount of essential vitamins and mineral. These products are available in all parts of the nation.

REFRIGERATOR RESTRICTION. Office for Emergency Management release (No. WPB 251): Retail sales of new mechanical refrigerators may be made only from stocks on hand February 14, EWT, or in transit at that time, according to an interpretation of Order L-5-b.

SWEET CORN DEVELOPMENTS. Paul Work, in Market Growers Journal, February 1: The field of early sweet corn has shown important development within the last year or two. North Star, introduced last year, seems to be a marked improvement over Seneca 60 and the Gem group. It has now been joined by Seneca 6-13, Spancross C 4-13 of Connecticut, Seneca 60 x 13 of Robson. Earligold of Woodruff is another addition. All of these are in the 60- to 65-day class, possibly a shadow later than Seneca 60, but the ears are much better in size and more presentable. Zarligold is quite chunky.

OPA CDILING PRICE, LABELS FOR SHEETS. Business Week, February 14: OPA last week set ceiling prices on finished cotton bed sheets, sheeting, and pillow cases at the manufacturer's level, and beginning March 2, OPA will require that each sheet, piece of sheeting, or pillow case sold must bear a label stating its type and class (determined by thread count, weight, tensile strength, selvage, width of hem and number of stitches per inch in hem, amount of sizing used). Sheeting which falls below the minimum specifications for its type and class must be sold and labeled as "substandard." The same regulation applies to "seconds."

Technically, OPA's sheet order is not out-and-out standardization, in that it does not require that all sheets be of a certain size, thread count, etc. But by setting up minimum specifications for four main types of cotton sheeting and by penalizing a manufacturer whose sheeting falls short of the specifications for its type-forcing him to sell at a discount from the ceiling price - OPA has a good equivalent. Seconds must be sold at 10% less than the ceiling for their type; substandards at discounts ranging from 5% on up, depending on the extent of their deviation from specifications.

AAA IDERACING POPULAR WITH TEMAS FARIERS. Coastal Cattleman, February: Conservation-conscious Texas farmers are falling in line with the new AAA terracing program, according to B. F. Vance, administrative officer in charge of AAA in Texas. Farmers can terrace their land now and pay for it later. County AAA committees set a reasonable price for terracing easier farms of the county through offers made by cooperating contractors. Once the fair price for a county is determined, farmers get bids for their farms from the contractors, take the offer they like best, and get their terracing done. Increased popularity of the program with Texas farmers is attributed to the fact that no cash outlay is required to get farms terraced.

QUILITIE FROM JAVA A MAR PRIZE. Business Week, February 21: Piled on open-air drying platforms in Java, the pulverized bark of the cinchona tree - quinine - is one more vital commodity of the Netherlands Indies which this week was in heightened danger of falling into Japanese hands as a result of the surrender of Singapore and the invasion of nearby Sumatra. Principal interest may focus on what's going to happen to the tin, rubber, and oil of the Indies, but quinine is in a very real sense more critical; 37,000 acres in Java account for virtually the entire world production. U.S. stocks of the fever-curing dru; are sufficient for two years.

DEMAND FOR CANNED BUTTER. Creamery Journal, February: Secretaries of state creamery associations in recent bulletins have asked their members if their plants are equipped to pack butter in hermetically sealed tins for use in tropical or under other climatic conditions where such protection is required. With a number of the war fronts in tropical climates it is anticipated that the Army and Navy will require an increased amount of butter packed in this manner.

In wartime tremendous amounts of alcohol are needed for making nitrocellulose used in the production of smokeless powder. It also has many other uses in the making of civilian and military products. As an example, during the World War the production of industrial alcohol jumped from 14 million gallons in 1915 to a peak of 55 million gallons in 1917 or an increase of 290 percent. In 1938 we had risen to 100 million gallons. There is little doubt but that production will increase greatly again during this war.

It is possible that, under the pressure of war time production, technological improvements in the processes that will considerably reduce the cost of manufacture may be introduced. If so, it may be possible after the war to replace some of the wartime demand for industrial alcohol by a demand for motor fuel purposes.

Present needs for dried foods already shows in production figures. Up until this year the greatest annual production of dried eggs was 10 million pounds in 1939. 1941 production was 45 million pounds and capacity is considerably greater now. In the past 2 years, dried whole milk output swelled from 24½ to 43½ million pounds. Dried skim milk increased from 268 to about 393 million pounds. Even the drying of peas and beans, old-time favorites in many meals, shot up almost one-half billion pounds. Dried beef which is the chipped beef you see creamed on toast, went up 10 million pounds. In spite of wartime cuts in commercial dried fruit exports, Lend-Lease shipments have bolstered the demand so that dried fruit production is beginning to climb back to normal.

PROTECTION OF FOOD WAREHOUSES. Food Industries, February: Responsibility for measures necessary to protect the food plant, its personnel and its products, from bombing and sabotage, rests with the plant management. Bulletins telling what should be done are available through the Office of Civilian Defense. Among these are: 1.) Blackouts, prepared by War Department, for sale by Superintendent of Documents, Washington, D.C., 25 cents; 2.) Civilian Defense — Protective Construction, Structure Series, Bulletin No. 1, for sale by Superintendent of Documents, Washington, D.C., 25 cents; 3.) Protection of Industrial Plants and Public Buildings. Superintendent of Documents, Washington, D.C., free.

More articles on wartime problems will be published in future issues of Food Industries as soon as the information becomes available. Some of this material will be based upon British experience and some on situations within the United States.